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ABSTRACT

This document is the final report of Phase I of a comparative study of teacher-training practices among 12 nation members of Asia-Pacific Economic Cooperation. The purposes of the study were to: (1) provide concrete, comparable descriptions of teacher-preparation systems useful to educators, researchers, and policymakers in all APEC member countries; (2) identify the key issues and challenges facing members with respect to teacher preparation and professional development; and (3) identify practices conducive to preparing teachers whose vision and methods of teaching enable students to meet the challenges of the 21st century. The reports prepared by the APEC members, following a common framework, describe each member s teaching force and labor-market conditions, teacher-preparation programs, licensing provisions, induction practices or internships, and ongoing professional development for teachers. An introductory section, "Highlights of the Study," summarizes the similarities and differences among the 12 nations. Chapter 1 is "Teacher Preparation and Professional Development in APEC Members: An Overview of Policy and Practice" (submitted by Office of the Under Secretary, U. S. Department of Education; prepared by V. L. Cobb, L. Darling-Hammond, and K. Murangi). Chapters 2 through 13 are the individual reports on teacher training and professional development from the participating countries: Australia, Brunei Darussalam, Canada, China, Hong Kong, Japan, Korea, Malaysia, New Zealand, Singapore, Chinese Taipei, and the United States.
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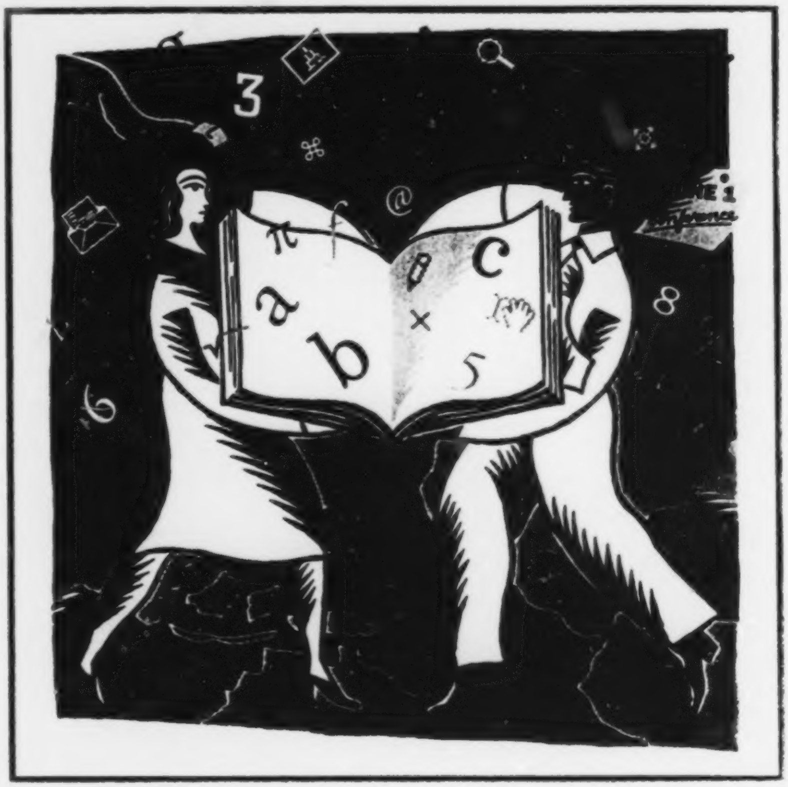

TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT IN APEC MEMBERS

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TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT IN APEC MEMBERS

A COMPARATIVE STUDY

Edited by

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and
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TEACHERS COLLEGE
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FOR ASIA-PACIFIC ECONOMIC COOPERATION

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Preface

APEC (Asia-Pacific Economic Cooperation) is an organization of 18 economies that border the Pacific Ocean. It aims to promote economic growth, development, and improved living standards in the Asia-Pacific region and the world through cooperation on trade and other issues. The APEC Education Forum promotes dialogue and cooperation on education issues among APEC members.

A comparative study of teacher-training practices was one of the original projects proposed by APEC members at the first meeting of the APEC Education Forum in January 1993. Eleven members joined the United States in carrying out this study. Members agreed that teachers are the key to success in achieving their education goals and that a broader understanding of teacher-training practices across the region could help members strengthen their own policies to enhance the profession, from initial training and induction to ongoing professional development. Until now, very little comparative information was available.

The purposes of the study were to provide concrete, comparable descriptions of teacher-preparation systems useful to educators, researchers, and policymakers in all APEC members; to identify the key issues and challenges facing members with respect to teacher preparation and professional development; and eventually, to identify practices conducive to preparing teachers whose vision and methods of teaching enable students to meet the challenges of the 21st century. This publication is the final report of Phase I of the project; Phase II, which focuses on teacher induction, is now underway.

At the core of this publication are the 12 reports prepared by APEC members following a jointly developed, common research framework. Each report describes a member's teaching force and labor-market conditions, teacher-preparation programs, licensing provisions, induction practices or internship, and ongoing professional development for teachers. The following members contributed reports:

- Australia
- Brunei Darussalam
- Canada
- People's Republic of China
- Hong Kong
- Japan
- Republic of Korea
- Malaysia
- New Zealand
- Singapore
- Chinese Taipei
- United States

The contribution of these member economies, and in particular the work of the authors of each member's report, is gratefully acknowledged. In addition, special thanks are extended Linda Darling-Hammond (co-principal investigator), Velma L. Cobb (co-principal investigator), and Kavemuii Murangi, all from the National Center for Restructuring Education, Schools and Teaching at Columbia University Teachers College, the United States. Several individuals provided ongoing advice to the project: Harry Judge (Oxford University), Lynn Paine (Michigan State University), Harold Stevenson (University of Michigan), Gary Sykes (Michigan State University), and Michael Timpane (formerly President of Teachers College, Columbia University). For the U.S. Department of Education, Lenore Yaffee Garcia, project officer for the study, and Christy Smith, both of the Office of the Under Secretary, also contributed to this report.

NOTES ON TERMINOLOGY USED IN THIS REPORT

This report follows APEC conventions regarding terminology. In the APEC context, "countries" are always referred to as "members," and terms implying recognition of members as sovereign states (such as national authorities or central governments) are not used. The names of the members are those agreed upon for use within APEC. For the purposes of this report, "APEC members" and "APEC member economies" refer to the 12 respondents listed above. "Schools" means both primary (elementary) and secondary schools. The word "regions" means provinces, states, or territories in Canada or Australia.

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Highlights of the Study

CHARACTERISTICS OF THE TEACHING FORCE

The characteristics of the present teaching force across APEC members are similar in many respects, particularly in terms of age and gender composition.

- Most APEC members report an increase in the average age and experience of their teaching force over the last decade, with most teachers now having over 10 years of experience and averaging between 35 and 45 years of age.
- Across APEC members, women make up the bulk of the teaching force at the pre-primary and primary school levels. While this pattern also applies at the secondary level in many members, in Japan and the Republic of Korea, men make up the bulk of the teaching force in secondary schools. In most APEC members, men continue to dominate employment in senior administrative positions such as principalships.
- In many APEC members, teaching salaries increase as school level increases, both as a function of school level and of the greater educational level typically attained by secondary school teachers. Teacher wages often compare unfavorably with salaries in other professions.
  - — For example, in New Zealand, on average, "a primary teacher with the same qualifications and teaching and doing similar tasks receives about 10 percent less than her secondary teacher colleague."
  - — In the People's Republic of China and the United States, teachers earn less than do members of the general, college-educated work force and of other professions. In Chinese Taipei and Japan, on the other hand, annual wages for teachers are competitive with those for other professional occupations. In both of these APEC members, teachers' wages compare favorably with wages of civil servants. Teacher shortages rarely occur in these members.
- While teacher supply exceeds demand in some members and falls short of demand in others, across APEC members, unmet demand is greater for secondary than for primary teachers. A number of members report shortages of secondary school teachers in subjects such as mathematics, science, and various foreign languages.
- Further, several members find it more difficult to meet demand for teachers in remote areas. Some members provide additional compensation to teachers who will teach in high-need areas. On the other hand, the United States is experiencing its highest demand for teachers in central cities and in growing regions of the country where immigration is high—areas typically offering lower teacher salaries relative to the labor markets in surrounding districts.
- Members facing teacher shortages use a variety of ad hoc solutions, including hiring teachers wtihout full preparation by establishing emergency and alternative routes to licensing.

CANDIDATE SELECTION

- All APEC members but one now require the completion of secondary education for entry into teacher preparation programs. Entry into teacher preparation programs tends to depend heavily on the candidate's prior academic achievement.
- In many APEC members, student intake is determined by government bodies in collaboration with teacher preparation programs. In these cases, APEC members underwrite some or all of the costs of education for candidates.

PROGRAMS

- In many members, elementary teachers have been trained in normal schools or teacher colleges operating below the bachelor's degree level, while secondary teachers have been trained in bachelor's degree programs in colleges and universities. But if there is a common trend, it is toward more extensive preparation for teachers—especially elementary teachers—across virtually all members.
- While for the most part primary teachers prepare as "generalists" to teach all content areas, there are exceptions. In Alberta, Canada and in Chinese Taipei, for example, those studying to become primary teachers are required to focus on a specific subject area, and in Hong Kong, they are required to specialize in two subject areas.
- Funding arrangements for teacher education range from wholly national or centrally funded programs in Malaysia, Japan, Chinese Taipei, Singapore, and Brunei Darussalam, to New Zealand, the United States, and Canada, where teacher education is financed in part by state or provincial governments with additional funds coming from student tuition, endowments, donations, and research.

STUDENT TEACHING OR INTERNSHIP

- The duration of practice teaching differs considerably across members, ranging from a few weeks in some members, to one year for all teachers in Chinese Taipei. While student teaching occurs most frequently toward the end of the preparation program, increasingly, clinical experiences are spread over the period of preservice training.
- Increasingly in Japan, the United States, Canada, Australia, and the Republic of Korea, some teacher preparation programs are affiliated with primary and secondary schools that are organized and supported to provide sites for practice teaching and for year-long internships.

INDUCTION

- Interest and support for providing beginning teachers with a transition period from formal preparation to practice is growing among APEC members. New Zealand and Japan offer examples of highly developed induction or internship programs.

— In New Zealand, though registration is not a compulsory requirement, new teachers are not eligible to become fully registered until they have completed at least two years' classroom experience. An "advice and guidance" program is available to all beginning teachers during their initial two years. The program includes resources and personal support from colleagues; a program of visiting and observing experienced teachers; meetings with other staff; appraisals of the beginning teacher's progress, and a written record of the induction program. In addition, primary schools that employ beginning teachers receive 0.2 teaching entitlement per week for each new teacher's first year, to facilitate released time for the beginning teachers or senior staff working with them.

— In Japan, beginning teachers maintain a lighter work load of teaching duties; attend in-school training two times per week, with assistance from designated guidance teachers; and receive out-of-school training once per week. Out-of-school training covers a wide range of activities including volunteer work, lectures, seminars, and visits to other schools, child welfare facilities, and private corporations. To support induction activities, schools employing one beginning teacher are assigned a part-time lecturer; those employing two beginning teachers are assigned a full-time teacher.

PROFESSIONAL DEVELOPMENT

- Professional development practices vary widely. As one example of the range of practice, Japanese schools provide teachers with 20 or more hours each week for collegial work and planning, visitations to other classrooms and schools, and demonstrations of teaching strategies. By contrast, U.S. teachers are allotted almost no in-school time for professional development or collegial work. Almost all professional development occurs in formal workshops or in courses after school, on the weekend, or on a small number of specially designated professional days.
- The range of professional development activities include those designed to upgrade the education level and qualifications of the current teaching force; familiarize teachers with national, state/provincial, and local curriculum developments; and to help experienced teachers keep pace with the ever-increasing knowedge base in sub-

ject areas and pedagogy, and with the use of technology as an aid in instruction.

LICENSURE

- While licensing or registration systems are common, several APEC members have no licensure systems. In Singapore and Brunei Darussalam, there is one teacher training program under government control that maintains strict admissions and academic preparations standards. In these members and in the People's Republic of China, completion of a preparation program constitutes authority to practice.
- In many cases, APEC members have different license categories depending on position level, subject area, and school level and type. In the Republic of Korea, teachers can obtain a higher rank license and an increase in salary through in-service training. Teacher licensing consists of four structures or levels: Grade 2 teacher, Grade 1 teacher, vice-principal, and principal. However, with the exception of Korea and Japan, most APEC members' licensing structures tend to be flat.
- APEC members report differing license or registration renewal policies, ranging from two to three years in Australia to lifetime registration/licensure in Hong Kong, the Republic of Korea, and Malaysia.

TRENDS

Some APEC members report that teaching is currently still a field with little opportunity for advancement and promotion; to advance in the field one must leave teaching. The number of administrators needed in the field is small, and, other than salary increments or credentialing for advancement, there are reported to be few external incentives to participate in professional development activities.

- In New Brunswick, Canada, and the United States, there is great interest in creating a career path that would yield a coherent, progressive conception of teachers' growth toward highly accomplished practice over the course of the teaching career.
- There is also increased emphasis on revising and improving the nature and quality of teacher preparation. In Chinese Taipei, for instance, a new law "requires that all new teachers be licensed like lawyers and doctors."
- Teaching in most APEC members is a highly regulated profession. However, efforts are underway in several members to provide teachers greater professional autonomy and greater voice in creating standards for preparation, licensure, and practice.

1

Teacher Preparation and Professional Development in APEC Members: An Overview of Policy and Practice

Submitted by: Office of the Under Secretary,
U.S. Department of Education

Prepared by: Velma L. Cobb,
Linda Darling-Hammond, and Kavemuii Murangi,
Teachers College, Columbia University

This analysis provides a brief synopsis of the trends, issues, and challenges identified by Asia-Pacific Economic Cooperation members with respect to teacher preparation and professional development. It is based on reports prepared by APEC members following a jointly developed, common research framework. Reports provided by participating APEC members varied widely in terms of detail and availability of data to answer each of the research questions; thus, specifics are noted here as they are available. Documents used for this analysis include reports (Chapters 2–13) from Australia, Brunei Darussalam, Canada, the People's Republic of China, Hong Kong, Japan, Malaysia, New Zealand, the Republic of Korea, Singapore, Chinese Taipei, and the United States.

Across APEC members, the preparation of new teachers and the professional and academic growth of experienced teachers are reported to be major priorities. While the educational attainment and qualifications of teachers have steadily increased over the last decade, there are many social, demographic, economic, and technological changes affecting APEC members. Education is seen as an important avenue toward growth and development in meeting the needs of an increasingly global society in the 21st century. A qualified teaching force is thought to be integral to this vision.

Following a brief discussion of the characteristics of the present teaching force across APEC members, this chapter looks at three central themes: the preparation of teachers, the induction of teachers, and licensure and other policy issues. The chapter concludes with a summary of future goals and trends.

CHARACTERISTICS OF THE TEACHING FORCE

The characteristics of the present teaching force across APEC members are similar in many respects, particularly in terms of age and gender composition. However, there are differences across APEC members in terms of salary scales and relative attractions of teaching and in terms of how teaching is perceived. Also, qualifications for entering teaching differ across APEC members. The types of qualifications required to teach at different levels are discussed later in this chapter.

Most APEC members report an increase in the average age and experience of their teaching force over the last decade, with most teachers now having over 10

Support for this overview was provided by the Office of the Under Secretary, U.S. Department of Education. The findings and conclusions presented herein do not necessarily represent the official positions or policies of the Department.

years of experience and averaging between 35 and 45 years of age. Japan, the United States, and Canada have the most experienced teachers. In these APEC members, the modal teacher has over 15 years of experience.

APEC members such as the United States, Singapore, Canada, Australia, and Chinese Taipei report that the teaching force is primarily composed of women, ranging from 59.8 percent of the teaching force in Chinese Taipei to 72 percent in the United States. Across APEC members, women make up the bulk of the teaching force at the pre-primary and primary school levels. In APEC members like Singapore, Chinese Taipei, New Zealand, and Australia, women constitute the majority of the teaching force at the secondary level (62.8% in Singapore, 52 percent in Chinese Taipei, 51 percent in New Zealand, 50.4 percent in Australia). However, Japan and the Republic of Korea report that men make up the bulk of the teaching force in secondary schools. In most APEC members, men continue to dominate employment in senior administrative positions such as principalships. For instance, in New Zealand women constitute 51 percent of the secondary teaching force but only 19 percent of secondary school principals.

Variations in teacher salaries can result from differences in schooling level, years of experience, and levels of responsibility, as well as from the social status of teaching. In many APEC members, teaching salaries are higher for secondary than elementary teachers, either due to separate salary scales or to the greater educational level typically attained by secondary school teachers. New Zealand is not unusual in that "on average, a primary teacher with the same qualifications and teaching and doing similar tasks receives about 10 percent less than her secondary teacher colleague."[1]

In Hong Kong, Singapore, and Malaysia the majority of teachers are employed by the government or government aided organizations and are salaried according to civil servant or government pay scales. In Japan, the majority of teachers are employed by local governments. However, in order to help equalize salary scales throughout the country, the national government pays half the salaries of all teachers. In the United States and Canada, teachers are employed by governmental school districts or by private schools, and while salaries conform to local salary schedules, they vary from one location to another.

Teacher wages do not always compare favorably with salaries in other professions. In the United States and in the People's Republic of China, for example, teachers earn less than do members of the general, college-educated work force and of other professions. In the United States, teachers earn 20–30 percent less than others in occupations requiring similar educational preparation. In the People's Republic of China,the average income of a teacher in 1991 was 9.8 percent lower than that of workers in industrial trades, 15 percent lower than those in scientific and technological jobs, and 17.6 percent lower than workers in architecture.

In Chinese Taipei and Japan, teaching is a respected profession and annual wages for teachers are competitive with annual wages in other professional occupations. In Chinese Taipei, teachers earn more than civil servants. (Teachers are not considered civil servants, although their basic pay scale is fixed on the same standards as those for civil service employees.) This is partly due to the fact that teachers receive a research allowance, and they also receive "13.5 monthly payments, even though they don't work in summer and winter sessions." Also, primary and junior high school teachers earn tax-free income for working in compulsory education (the nine years of schooling required of all students).

In Japan, teachers' salaries compare favorably with those of other government employees. For instance:

> As of the 1992 academic year, the starting monthly salary for a government employee engaged in general administration was yen 161,400 (at the exchange rate concurrent with this writing, one U.S. dollar was equivalent to 100 yen) while teachers at national elementary and lower secondary schools received yen 180,800. Teachers at national elementary and lower secondary schools also receive a special allowance for compulsory education teachers. (Chap. 7)

Japan tries to equalize teachers' salaries across its three types of schools: national, public, and private. National schools are those schools founded by the national government. Most other schools are public and are founded and administered by local governments at the city, town, or village level. In order to prevent salary disparities resulting from varying local budgets, the prefecture government is responsible for the salaries of teachers at these schools. The national government aids in these efforts by providing 50 percent of the salaries of all teachers engaged in compulsory education. As a result, the compensation of teachers in the various prefectures is comparable to the compensation of teachers at the national schools.

Supply and Demand

Before discussing the characteristics of the teaching force, it is important to note that accurate projections regarding the supply and demand of teachers and ways of attracting and retaining highly qualified teachers are challenges each APEC member is currently attempting to address. Changes in teacher supply and demand are largely dependent on economic and demographic factors, such as size of the student population, immigration and emigration rates, and turnover or retirements. Teacher attrition, one component of turnover, is often related to unemployment rates in other occupations as well.

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[1] Quotations in this chapter are taken from the relevant APEC member chapter.

APEC members such as Brunei Darussalam, the People's Republic of China, and the United States report an overall rising demand for qualified teachers. In Brunei Darussalam, expanding enrollments and a growing number of specialized areas, including the bilingualism policy of the Ministry of Education, have increased teacher demand. In the People's Republic of China, the 9-year compulsory schooling requirement has increased the demand for teachers. In the United States, increased immigration and rising birth rates, coupled with growing retirements, are dramatically raising the number of new teachers hired each year.

Other APEC members report a declining demand for teachers. Japan, for example, is currently experiencing a decline in student population, and fewer teachers are needed. New Zealand is also experiencing static or declining student populations in primary schools. Falling attrition rates contribute to decreasing overall demand for teachers in New Zealand and Canada. New Zealand attributes decreasing attrition rates for teachers to an overall high level of unemployment in the wider economy. In Canada, turnover has decreased given the rising age of teachers; most teachers are in their mid-career years, when attrition is generally quite low.

Geographic factors also influence supply and demand. APEC members like Australia, the People's Republic of China, and Canada, for instance, report that the unmet demand for teachers is consistently higher in remote areas of their countries. Some members provide additional compensation to teachers who will teach in high-need areas, so as to avoid shortages of teachers. On the other hand, the United States is experiencing its highest demand for teachers in central cities and in growing regions of the country where immigration is high. Typically, areas with unmet demand offer lower teacher salaries relative to the labor markets in surrounding districts.

Supply-and-demand levels also vary considerably according to school level and subject area. Across APEC members, the unmet demand for secondary teachers tends to be greater than the unmet demand for elementary teachers. APEC members such as the United States, Singapore, Hong Kong, Canada, the Republic of Korea, and Australia reported having shortages of secondary school teachers in subjects such as mathematics, science, and various foreign languages. In the United States, fields like computer science, education for students with disabilities, bilingual education, and early childhood education also join the list. Hong Kong reports shortages of teachers in literature, English language, and computer studies as well. In Canada, areas of teacher shortage vary by province, but in general Canadian schools have some difficulty hiring qualified staff to teach French, English, mathematics, and science. Australia also reported persisting shortages in the areas of mathematics and the sciences.

Supply and demand are in some cases influenced by structural and demographic changes affecting the school system. Singapore has experienced a surplus of teachers for the primary education cycle since 1993. This surplus was created by a structural change in the education system when the Preparatory Year Project, a pre-school program that had been part of the primary school phase, was discontinued. In the People's Republic of China, due to a program of "reform and opening to the outside world as well as modernization," there has been a great emphasis on vocational education, which has led to a sudden increase in the number of vocational secondary schools. In turn, this has increased the demand for teachers and created a situation whereby teachers without the necessary qualifications are hired on an emergency basis. Similarly, structural factors contribute to teacher shortages in the United States. Recent reforms requiring more mathematics and science courses for graduation from high school have heightened demand for teachers in those subjects, while federal programs requiring bilingual and special education have increased demand in these areas.

In APEC members such as the United States, Singapore, Hong Kong, the People's Republic of China, Australia, and Canada, teacher shortages are addressed with a variety of ad hoc solutions, such as dropping courses, increasing class sizes, and/or lowering qualifications for those entering the profession in order to fill vacancies. In the United States, for example, an undersupply of teachers is often met by reducing standards for entry by establishing emergency and alternative routes to licensing. Candidates in many of these shorter term routes engage in little or no education coursework or student teaching prior to entering the classroom. In Hong Kong as well, "schools are permitted to take on less qualified staff.... When teachers for specific subjects cannot be found, schools have to make do by falling back on teachers with closely related training."

Alternative programs for recruiting teachers are also found in Singapore. The Cadet Graduate Teacher Scheme recruits students who are enrolled in the teacher preparation institute but who have not yet had professional training. Similarly, under the Provisional Graduate Teacher Scheme, "untrained candidates" are offered a temporary contract for one year. The Ministry of Education of Singapore also recruits teachers from abroad, especially mathematics and English teachers.

The extent to which supply and demand vary by locality depends in part on the degree of centralization of teacher employment. APEC members report many different recruitment and hiring practices. In APEC members where teachers are considered government employees or civil servants, recruitment is often centralized and handled by the Ministry of Education or the equivalent. This is the case in Korea, Malaysia, Singapore, and Brunei Darussalam. Singapore and Brunei Darussalam have a single teacher training institution that serves and responds to the needs of the central government. By contrast, in the United States, Canada, and Australia, education is a function of the state or province, and hiring and recruitment operations are delegated to city, town, and local school districts, where hiring practices and salaries differ substantially. As a consequence, some districts may experience shortages while others in the same region are experiencing surpluses of teachers.

In New Zealand, hiring and recruitment are the responsibility of the local board of trustees, which, except for senior positions, most often delegates this responsibility to the principal. Other than those of senior staff members on contract, teachers' salaries are governed by the national collective agreement between the teacher unions and the State Services Commission (representing the government). Variations in salaries are due to different levels of qualifications, teaching experience, school level, and degree and types of responsibilities. In some cases regional and local authorities offer incentives—such as low-rent housing or higher levels of responsibility—to attract teachers to remote areas or to teach subjects in which there is a shortage of teachers.

In Japan, as was discussed earlier, differences in teachers' salaries are prevented by the prefecture government's paying the salaries of teachers at the various local levels: city, town, and village. In order to ensure nationwide uniformity in terms of salaries, salaries in each prefecture are matched to the pay received by national school teachers, which is determined by law. While the impact of teaching compensation and status on the supply of teachers is difficult to assess, there are some indications that high status and competitive compensation do have positive effects on supply. According to the Chinese Taipei report, "because school teachers are well paid, highly respected, and have high job security, teaching tends to be their profession for life." While occasional teacher shortages occur in Chinese Taipei, these are attributed to unpredictable events, such as the inability of the teacher preparation system to adjust quickly to changes in demand, since teacher training institutions recruit and prepare a fixed number of students. At present, Japan is reporting a decline in the demand for new teachers due to a decline in the student population and low attrition of current teachers. Shortages of teachers are quite rare.

THE PREPARATION OF TEACHERS

Goals and Institutions

APEC members report similar goals and aims for teacher education: All APEC members see the professional preparation and development of "quality teachers" as a major aim for teacher education. Quality teachers are described as having some combination of the following attributes:

- Pedagogical knowledge
- Subject area content knowledge
- The skills and attitudes necessary for effective teaching
- A strong understanding of human growth and child development
- Effective communication skills
- A strong sense of ethics
- A capacity for renewal and ongoing learning

The social missions of teacher preparation are broad. New Zealand, Hong Kong, the People's Republic of China, and the United States cited the importance of training a teaching force that is well equipped to prepare students to function competently within an increasingly competitive and interdependent global society. Brunei Darussalam and the People's Republic of China discuss the key role of teacher preparation in fostering national unity, pride, and identity.

For the most part, institutions set their own guiding principles for their teacher preparation programs, although it is likely that this may occur within a framework of national goals in some cases, or through state/province guidelines in others. In Japan and the People's Republic of China, the Minister of Education, Science, and Culture and the State Education Commission, respectively, set national goals for teacher education. In Quebec, Canada, the province's Ministry of Education is currently defining the "orientations and principles teacher training programs must comply with, as well as the competencies expected of new teachers at the end of their studies."

In the United States, each state sets standards for recruiting, preparing, and licensing teachers. Recently, more than half the states joined together to develop model standards for licensing beginning teachers that will be compatible with the standards for advanced certification established by a national professional body, the National Board for Professional Teaching Standards. About 40 percent of the teacher preparation programs in the United States, representing about 70 percent of teacher candidates, are professionally accredited by the National Council for Accreditation of Teacher Education (NCATE), which uses a common set of standards to evaluate programs. In the United States, professional education accrediting organizations for law, medicine, architecture, teaching, and other professions are recognized by the U. S. Department of Education.

The APEC members' reports reflect a wide range of qualifications for entry into teaching, from those who acquire a bachelor's or master's degree at universities to those who have received no special preparation for teaching at all—although no country has the latter as a basic policy. All APEC members, with the exception of the People's Republic of China, now require the completion of secondary education for entry into teacher preparation programs. In the People's Republic of China, pre-primary and primary school teachers typically have completed junior high school plus a three- to four-year teacher training program. (See Table 1.1 for an outline of qualifications required by the APEC members participating in this report.)

Secondary education ranges from three to seven years in duration. Six years of secondary education seems to be typical of many APEC members (Republic of Korea, Japan, the United States, Chinese Taipei, and many provinces in Canada). The People's Republic of China and Hong Kong have three years of compulsory secondary education. In Hong Kong, about 85 percent of the relevant age population also receive a noncompulsory, two-year upper secondary level education, and 28 percent go on to receive an additional two years, or "sixth form," matriculation education.

Candidate Selection

Across APEC members there is considerable variety in the ways in which teaching candidates are selected and prepared to enter the field of teaching. Within any given APEC member, there are a multitude of entry points for teaching candidates. These vary by the type of preparing institution and by the school level at which candidates plan to teach—elementary or secondary.

Examinations are widely used to determine candidates' readiness and capacity for teacher education programs. In APEC members like the Republic of Korea, Malaysia, the People's Republic of China, and Singapore, national examinations are taken by all graduates of secondary education. Minimum scores for entry into teacher preparation programs are established by the preparatory institution, and may vary according to the type of preparatory program and the educational level and subject area to be taught. New Zealand, Canada, and Japan report that there are no national examinations, and teacher preparation institutions have their own criteria for entry. In the United States, an increasing number of states require some form of testing before entry into a teacher education program. Usually, a minimum score on a nationally normed college entrance test is required. In addition, 15 states and over 70 percent of colleges have set minimum grade-point averages for entry into teacher education.

In most APEC members, entry into teacher preparation programs depends heavily on the candidate's academic achievement in secondary school (or in the first years of college, if teacher preparation occurs in the latter years). Grades and test scores are often used as indicators of academic achievement. Some APEC members also assess the language and communication skills of candidates, conduct interviews, and consider aptitudes for leading cocurricular activities.

Admission interviews for the purpose of judging a candidate are also used in some universities in the United States, Canada, and New Zealand. Interviews are also used in some Japanese prefectures' Teacher Employment Selection Tests for the purpose of assessing general qualities and attitudes toward the profession. In New Zealand, involvement in cultural, sporting, social, and welfare activities, and attitudes that affirm New Zealand's equity and bicultural values, are also considered. Some universities in the United States and Canada require confidential statements from referees that attest to the candidate's suitability for admission.

In many APEC members, including Brunei Darussalam, the People's Republic of China, Singapore, Malaysia, the Republic of Korea, Hong Kong, and Chinese Taipei, student intake is determined by government bodies in collaboration with teacher preparation programs. In these cases, APEC members underwrite some or all of the costs of education for candidates. The total number of candidates admitted is typically based on the supply and demand of teachers and/or the funding available for candidates. In Chinese Taipei, the number of entrants into teacher preparation programs is fixed at the same level each year and is not responsive to supply-and-demand trends. This causes some difficulties in responding to changes in demand.

In the United States, Canada, and Japan, there are no established processes for determining the number of students admitted to teacher education programs. In the United States and Canada, program size largely depends on the number of interested candidates meeting entry requirements and the admission policies of individual institutions. In many Canadian provinces, faculties of education have intake quotas for specific areas of concentration. Canada's report notes that "except in the area of mathematics and sciences, applicants outnumber available quota slots." While teacher education programs receive some government funds in the United States and Canada, much of the cost of preparation is borne by candidates themselves, in the form of tuition payments.

TABLE 1.1
Qualifications Required to Teach at Various School Levels by APEC Members

APEC Members	Pre-Primary	Primary	Junior High School	Senior High School
AUSTRALIA	Post-school diploma	3-year diploma or degree. Trend toward 4-year degree	Bachelor's Degree—4 years; 1-year Graduate Diploma of Education	Bachelors Degree—4 years; 1-year Graduate Diploma of Education
BRUNEI DARUSSALAM	—	University degree—B.A.; 2- or 3-semester Postgraduate Certificate in Education or Certificate in Education—in-service	4-year degree—preservice; 2 or 3 semester Postgraduate Certificate in Education or Certificate In Education—in-service	4-year degree—preservice; 2- or 3-semester Postgraduate Certificate in Education or Certificate in Education—in-service
CANADA	B.Ed. or the equivalent	B.Ed. or the equivalent—4 years	B.Ed. or the equivalent—4 years	B.Ed.—4 years
PEOPLE'S REPUBLIC OF CHINA	Junior High plus 3–4 years preservice training	Junior High plus 3–4 years preservice training	Senior High plus 2–3 years preservice training	B.A. or B.S.
HONG KONG	At least Secondary 5 or Secondary 3, plus in-service training. Most have completed Secondary 5*	Mainly Secondary 5, plus 3 years—preservice training; Secondary 7, plus 2 years preservice training; a minority have secondary education plus 2 years in-service teacher training	Secondary 5 plus 3 years—preservice training; Secondary 7 plus 2 years preservice teacher training; degree plus Postgraduate Certificate in Education	Degree plus Postgraduate Certificate in Education
JAPAN**	M.A. (Advanced); B.A. (1st); Associate Degree (2nd)	M.A. (Advanced); B.A. (1st); Associate Degree (2nd)	M.A. (Advanced); B.A (1st); Associate Degree (2nd)	M.A. (Advanced); B.A. (1st)
MALAYSIA	Trained and Untrained "O" Level education	"O" Level Certificate plus 2.5 years. Basic primary teacher training	Bachelor's Degree plus 1 year Postgraduate Diploma in Teaching or Certificate of Teaching plus Bachelor's Degree	Bachelor's Degree plus 1 year Postgraduate Diploma in Teaching or Certificate of Teaching plus Bachelor's Degree
NEW ZEALAND	A range of education and qualifications, including Diploma of Teaching (Early Childhood)—diploma not required but preferred	Diploma of Teaching. Trend toward a university degree	University degree or diploma in subject specialty or in education	University degree or diploma in subject or education
REPUBLIC OF KOREA	4-year college; junior vocational college; air and correspondence colleges	Graduates of 4-year National Teachers College	Graduates of colleges of education; general colleges, and universities	Graduates of colleges of education; general colleges, and universities
SINGAPORE	General Certificate of Education, "O" Level or less	General Certificate of Education, "A" Level, and Diploma in Education	B.A. or B.S.—4 years; Postgraduate Diploma in Education	B.A. or B.S.—4 years; Postgraduate Diploma in Education
CHINESE TAIPEI	Training at Teachers College	Training at Teachers College	Teacher Training at Normal University	4-year undergraduate education
UNITED STATES	High School	B.A.; M.A. in some states	B.A.; M.A. in some states	B.A.; M.A. in some states

*Secondary 1–3 equals lower secondary (compulsory). Secondary 4 and 5 equals upper secondary. Secondary 6 and 7 are also referred to as Sixth Form.

**Japan has several types of standard certificates for each school category; advanced, first class and second class. There is no second-class certificate for upper secondary.

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Programs

Several decades ago, attendance at a normal school for one to three years was deemed to be sufficient training for teachers. More recently, normal schools have been transformed into regular four-year colleges in many APEC members. The duration and quality of the training progams have increased and the mission of many teachers' colleges has changed so that teacher preparation is no longer their only function. Increasingly, teachers are also trained in multipurpose universities.

The nature of teacher preparation programs across APEC members often differs according to the educational level to be taught. Elementary school teachers have frequently had lower levels of education than secondary school teachers, and the two types of teachers have frequently been educated in different types of institutions: In many members, elementary teachers have been trained in normal schools or teachers' colleges that often operate below the bachelor's degree level, while secondary teachers have been trained in bachelor's degree programs in colleges and universities. Many APEC members are questioning whether requirements for teaching elementary and secondary school pupils should differ so markedly in organization and duration, especially in view of the importance of primary school as preparation for later grades. If there is a common trend, it is toward more extensive preparation for teachers—especially elementary teachers—across virtually all members. This often means embedding teacher preparation in an undergraduate degree program, or, for members that already require undergraduate degrees for all teachers, extending preparation requirements into graduate school programs.

Across APEC members, institutions responsible for teacher education vary considerably in type, level, and duration, and generally fall into three categories:

1. *Certificate or degree programs housed in normal colleges, normal schools, and colleges of education established solely for the purpose of training teachers:* These programs are usually for elementary school teachers and emphasize pedagogical preparation more than subject area preparation. In most cases these are two- to four-year programs leading to a certificate or diploma in teaching.
2. *Degree programs housed at general, multipurpose universities:* These programs tend to entail greater subject matter preparation and relatively less pedagogical preparation. These are generally three- or four-year programs leading to a bachelor's degree, with the teacher preparation portion lasting one to two years.
3. *Master's degree and/or fifth-year programs:* These programs are open to candidates who have completed a bachelor's degree and lead to a master's degree or postgraduate diploma in education. The duration of these programs ranges from one to two years.

In the United States, Canada, and Japan, the requirements for the preparation of teachers are the same for all school levels. In these countries, both elementary and secondary school teachers are prepared in bachelor's degree programs or fifth-year programs that can lead to a master's degree. In the United States, virtually all teachers (98 percent) have at least a bachelor's degree and most (53 percent in 1991) now have a master's degree or higher. In Hong Kong and Australia, secondary school teachers earn a bachelor's degree plus a one- or two-year diploma/certificate in education.

In Australia, New Zealand, and Hong Kong reforms in the last decade reveal a trend toward preparing primary teachers as well as secondary teachers in bachelor's degree programs. New Zealand has recently begun preparing primary teachers in programs yielding a four-year Bachelor of Education degree. This trend has been supported and facilitated by changes in government policies to raise primary teacher preparation to degree status, and to encourage nondegree colleges to become affiliated with degree-granting universities. In Australia, all Colleges of Advanced Education, which provided initial teacher training, are now universities. In Hong Kong, Bachelor of Education (Primary) degree programs have recently been introduced.

Across APEC members, the length of teacher preparation programs generally ranges from one to two years, depending on the school level at which candidates are expected to teach and the type of programs in which they are enrolled (whether undergraduate or postgraduate). In some instances, programs are embedded in four-year undergraduate degrees and teacher education coursework may be carried out in a less concentrated manner throughout the four years, or may be concentrated in the last two years. For primary-level teaching, teachers' postsecondary education may be from two to four years, with the portion devoted to specific preparation for teaching comprising about two years. For secondary level teaching, coursework tends to take place in a four-year undergraduate degree program, with a smaller proportion (about one or two years) specifically devoted to education coursework.

While there is some variability in terms of curriculum content, teacher preparation programs generally provide students with some combination of coursework in subject matter, teaching methods and materials, child growth and development, and other education courses, such as educational psychology, history and philosophy of education, and practical teaching experience. (See Table 1.2 for selected examples of the content of teacher preparation programs in APEC members participating in this report.) In Alberta, Canada, students are also required to take some educational administration courses. The extent of education coursework tends to vary for elementary and secondary teachers, with elementary teachers pursuing a relatively greater number of courses on teaching and learning and secondary teachers pursuing a relatively greater number of courses in the subject area(s) they plan to teach.

Many APEC members report that primary teachers do not concentrate in a specific subject area but prepare as "generalists" to teach all content areas. There are, however, several exceptions to this trend: In Alberta, Canada, and in Chinese Taipei, for example, students in primary education are required to focus on a specific subject area in addition to the generalist focus. In Hong Kong, primary education students are required to specialize in two subject areas. And in the United States a few states no longer permit students in elementary education to major in education but require them to major in a liberal arts discipline in college while they are also taking the requisite courses for teacher preparation.

The reports of APEC members indicate that secondary school teachers are generally required to major in the subject area they will ultimately teach. The liberal arts programs are, on average, four years in duration, with one of the four years spent on teacher preparation. In members like the People's Republic of China, Chinese Taipei, Japan, Singapore, and Canada, the curriculum for secondary teacher preparation involves a combination of general education, teaching pedagogy, psychology courses, and practice teaching. The number of education courses seems to vary among APEC members and depends on the program. For instance, in the United States, education courses typically constitute one-fifth of the total courses for secondary education majors—an average of about 26 credits out of a total of 135. Elementary education majors take about 50 credits of education courses out of a total of 125 credits. The examples cited below were selected because of the amount of detail provided on the content of preservice curricula.

In the People's Republic of China, the curriculum for secondary school teachers' preparation consists of five components: political theory (philosophy, economics, etc.); foreign languages; education courses (educational theories, psychology, and methodology of teaching); physical education; and specialized courses in major fields (basic specialized courses and elective courses). Students are also expected to do an eight- to ten-week student teaching practicum, depending on whether they are in a three- or a four-year program.

In Chinese Taipei, education for both primary and secondary school teaching requires four years of coursework (general and professional coursework) and one year of teaching practicum. During these four years, preservice students are required to take 148 credits—20 credits more than the number required at other universities and colleges. Of the 148 credits, professional education coursework consumes 20 and primary and secondary school teaching consume 16 credits each. In Chinese Taipei, professional training for primary school teachers includes "courses in primary education, educational psychology, teaching principles, types of teaching materials and methods in language arts, social studies, mathematics, natural sciences, music, fine arts, crafts, and teaching practice." For secondary schools, professional training includes courses such as "the introduction of education, secondary education, educational psychology, teaching principles, teaching method and teaching practicum; and four credits of elective courses, chosen from educational philosophy, educational sociology, vocational guidance, audio-visual education, and moral principles." Completion of preservice secondary programs usually yields a Bachelor of Education degree or a Bachelor of Science in Education degree.

In British Columbia, Canada, a strong emphasis is placed on the theoretical bases of modern educational practice, as well as on intensive opportunities for practice. "Studies include analysis of the nature and objectives of education and of the developmental characteristics of learners. Attention is given to candidates' own interpersonal and communication skills and to strategies and methods of teaching." Practicum experiences, including 12 or more weeks of student teaching, are interwoven with courses on teaching methods across subject areas, educational applications of learning, development, and measurement theories, and social foundations of education across a two-year period for elementary teachers and a one-year period for secondary teachers. This model is similar to prevalent models in the United States as well.

In APEC members like the United States, Australia, Singapore, Japan, New Zealand, Canada, and Hong Kong, some students enter teacher education programs having already completed a bachelor's degree. In these cases, preparation programs are usually one to two years in length and students are awarded postgraduate diplomas in teaching and/or a master's degree (see Table 1.1). For example, in Australia, the general pattern of secondary teacher preparation consists of a three- to four-year university degree program in which the students specialize in the subject areas they will teach, followed by a one-year master's degree program in education. Alternately, prospective teachers pursue a four-year Bachelor of Education degree, integrating subject disciplines, education, and teaching practices. Most universities in Australia are gravitating toward a two-year add-

TABLE 1.2
Professional Content of Teacher Preparation Programs in some APEC Members*

APEC Members	Elementary Teachers	Secondary Teachers
BRITISH COLUMBIA, CANADA (2-YEAR PROGRAM)	**PROFESSIONAL COURSES:** Analyses of education; principles of teaching; pre-practicum experience; communication skills in teaching; educational application of developmental theories; development and exceptionality in the regular classroom; introduction to reading and language arts instruction; curriculum and instruction (art, physical education, elementary, language arts, mathematics, music, reading, science, social studies). **STUDENT TEACHING:** about 12 weeks.	**PROFESSIONAL COURSES:** Analyses of education; principles of teaching; orientation school experience; education during adolescent years; development and exceptionality in the regular classroom; courses related to first teaching subject; courses related to second teaching subject; communication skills; school organization in its social context; learning measurement, and teaching; language across the curriculum; educational anthropology, history of education; philosophy of education; social foundations of education; educational sociology; credits for prescribed courses related to teaching subject(s). **STUDENT TEACHING:** about 10 weeks.
THE PEOPLE'S REPUBLIC OF CHINA	**PROFESSIONAL COURSES:** Psychology; methodologies of: primary mathematics, primary science, physical science, music, fine arts. **STUDENT TEACHING:** 8–10 weeks.	**PROFESSIONAL COURSES:** Education courses—educational theories, psychology, methodology of teaching: Physical Education. **STUDENT TEACHING:** 8–10 weeks.
JAPAN**	**PROFESSIONAL COURSES:** Essence and goals of education; physical and mental development and the learning process of students; education system and management; educational methods and techniques (including the use of computers and educational materials); subject teaching methodology; moral education; special activities; student guidance and educational consultations. **STUDENT TEACHING:** about 4 weeks.	**PROFESSIONAL COURSES:** Essence and goals of education; physical and mental development and the learning process of students; educational methods and techniques (including the use of computers and educational materials); subject teaching methodology; moral education; special activities; student guidance and educational consultations. **STUDENT TEACHING:** about 2 weeks.
SINGAPORE	**PROFESSIONAL COURSES:** Teaching of English; teaching of mathematics; third methodology course (chosen from electives); pupil development; social context of schooling; applications of psychology in teaching and learning; instructional technology. **STUDENT TEACHING:** B.A.—25 weeks over 4 years. Post-Graduate Diploma—9 weeks over 1 year. Diploma in Education—15 weeks over 2 years.	**PROFESSIONAL COURSES:** Teaching methods of 2 subjects graduated (majored) in from respective universities; pupil development; social context of schooling; applications of psychology in teaching and learning; instructional technology. **STUDENT TEACHING:** B.A.—25 weeks over 4 years. Post-Graduate Diploma—9 weeks over 1 year. Diploma in Education—15 weeks over 2 years.
CHINESE TAIPEI	**PROFESSIONAL COURSES:** Primary education; educational psychology; teaching principles; teaching methods and materials (language arts, social studies, mathematics, natural sciences, music, fine arts, crafts). **PRACTICUM:** 1 full-year internship.	**PROFESSIONAL COURSES:** Secondary education; educational psychology; teaching principles; teaching method; 4 credits of electives chosen from educational philosophy, educational sociology, vocational guidance, audiovisual education, and moral principles. **PRACTICUM:** 1 full-year internship.

*These APEC members were selected because of the amount of detail provided in the initial reports. The lists of courses for individual members are not necessarily complete or comprehensive.

**For upper secondary school teachers, moral education is an elective.

on degree program instead of the one-year course. Some universities are also considering preparing elementary school teachers, who are currently prepared in three-year diploma/degree college programs. In New Zealand, the normal route for most secondary school teachers is a university degree plus one year of teacher preparation.

Student Teaching

Student teaching is seen as a key component of teacher preparation across APEC members. The duration of a student teaching experience differs from one member to another and for elementary and secondary teachers. Practice teaching assignments for primary school teachers range from several sections of 4 weeks (constituting about one-third of a year's training) in New Zealand to a full-year internship in Chinese Taipei. The duration of practice teaching at the secondary level also varies widely, from about 2 weeks in Japan to a minimum of 12 weeks in Canada, to one year in Chinese Taipei. Frequently, student teaching occurs toward the end of the program, after the completion of coursework. However, increasingly, clinical experiences are spread over the period of preservice training. In a growing number of members, elementary and secondary school teaching candidates go through field experiences in which they observe classes or serve as tutors or teacher aides prior to student teaching. In Canada and the United States, there is now a trend toward requiring students to undertake observation or practicum experiences earlier in their programs.

In some instances the length of a student teaching experience also depends on the nature of the program—for example, an undergraduate two- to four-year program or a postgraduate diploma or certificate. In Singapore, for example, the practicum for a program leading to a baccalaureate degree can be as much as 25 weeks over the course of the four-year university program. One-year programs leading to a postgraduate diploma in education and two-year programs leading to a diploma in education have practicums 9 weeks and 15 weeks in duration, respectively. In the United States, the duration of student teaching programs ranges from 8 weeks to two full semesters, with most programs requiring 12–15 weeks. New graduate-level programs require the most sustained and intensive practice teaching experience in the form of a year-long school-based internship conducted alongside coursework.

New Zealand and Australia report that cooperating teachers, associate teachers, or tutor teachers are responsible for mentoring and evaluating the skills of new teachers. In Canada, the United States, and Singapore, faculty from the preparation program and school-based cooperating teachers work together to assess students. In Wellington, New Zealand, cooperating teachers take the Advanced Studies in Teaching course to help prepare them for their role. Japan, the United States, Canada, and the Republic of Korea report that some teacher preparation programs are affiliated with primary and secondary schools that are organized and supported to provide sites for practice teaching. Schools of education in the United States and Australia are increasingly creating professional development school relationships with local schools. These school and college partnerships create sites for preparing new teachers in a manner that integrates theory and practice while also supporting research and stimulating reforms of both schools and schools of education. By working with expert teachers to strengthen the quality of the practice teaching experience, an environment is created for the ongoing professional development and growth of experienced teachers.

Linkages Between Teacher Education and Other Curriculum Standards

Only a few APEC members (Malaysia, Japan, and Singapore) report strong connections between teacher education curricula and curricular standards for schools and students. Teacher preparation programs in New Zealand, Hong Kong, Canada, Chinese Taipei, and Brunei Darussalam are encouraged to take into consideration curricular standards for schools and students in the design of their own curriculum. In addition, the introduction of new government curricula is an important factor in setting priorities for professional development activities undertaken by schools in New Zealand. In the United States, some states are defining curricular standards for what students should know and be able to do and are then using these standards to determine what beginning teachers should know. Australia, too, is bringing "stakeholders in education" together "in order to standardize education outcomes across the country."

ON-THE-JOB TRAINING AND DEVELOPMENT

Many APEC members feel that the social, demographic, economic, and technological changes taking place call for greater connections between the aspects of teacher education that deal with subject-area content knowledge, pedagogical knowledge, and clinical or practical experiences in teaching. These trends also require ongoing professional development for veteran teachers, whose knowledge is continually challenged by new demands of subjects and students.

Induction

APEC members report that they increasingly recognize the first years of teaching as a critical time for developing effective skills and positive attitudes regarding the profession. As a result, interest and support for providing beginning teachers with a transition period from formal preparation to practice is growing among APEC members. APEC members such as Hong Kong, the People's Republic of China, the Republic of Korea, the United States, Canada, New Zealand, and Japan have or are developing induction programs, transition periods, and on-the-job support for beginning teachers. In Chinese Taipei, teacher candidates go through a year-long internship following their coursework and prior to licensure.

New Zealand and Japan offer examples of highly developed induction programs. In New Zealand "it is generally accepted that the first years in the classroom are a continuation of the preservice training students received in college, and the first stage of their ongoing professional development."

New Zealand's Advice and Guidance Program is provided for all beginning teachers during their initial two years in the classroom. In fact, new teachers are not eligible to become fully licensed (registered) until they have completed this two-year experience. Although the program may vary from school to school, it must include the following elements to receive approval by the New Zealand Teachers' Registration Board:

1. Resources and personal support from colleagues in the same curriculum area, school, or educational center
2. Classroom visitations and written appraisals regarding the beginning teacher's progress toward meeting registration criteria
3. A program of visiting and observing experienced teachers
4. Meetings with senior staff and beginning teachers to "clarify the wider aspects of the beginning teacher's work and responsibilities"
5. A written record of the induction program with the advice and guidance received and the extent of participation in planning the corporate life of the school or [early childhood] center (Chap. 10)

In addition, primary schools that employ beginning teachers in New Zealand receive an additional 0.2 teaching entitlement per week for each new teacher's first year, to facilitate released time for the beginning teachers or senior staff working with the beginning teachers. At the secondary level, released time is for the beginning teacher only, who has a workload that is 0.8 of the teaching entitlement of a fully registered teacher.

In Japan, newly appointed teachers receive formal induction training during their first year of teaching. Beginning teachers: (1) maintain regular teaching duties with a "lighter work load"; (2) attend in-school training two times per week; and (3) receive out-of-school training once per week. During in-school training, "designated guidance teachers" (usually experienced teachers) offer support and assistance to the beginning teachers. Out-of-school training covers a wide range of activities, including volunteer work, lectures, seminars, and visitations to other schools, child welfare facilities, private corporations, and social education facilities. To support induction activities, schools employing one beginning teacher are assigned a part-time lecturer; those employing two beginning teachers are assigned a full time teacher. The appointing authorities cover funding for induction programs, and the national government covers one half of all related personnel and out-of-school training costs.

Hong Kong, the Republic of Korea, and the People's Republic of China also reported having induction programs for beginning teachers. However, available information is not sufficient to allow an in-depth discussion of these programs. In Canada, the provinces of Quebec and New Brunswick are currently piloting induction programs. And in the United States, approximately 25 states have started some kind of induction program, although only a few have provided funding for mentors, released time, or graduated responsibility for new teachers. In these programs, teachers are generally employed full time on provisional licenses and are observed and evaluated on their teaching performance as a condition for receiving a professional license after one to three years.

Singapore and Australia have no formal induction programs. Recently, the Australia Education Union, a national teacher union for government-sector teachers, has created policy guidelines for launching induction programs. These policies recommend:

1. An induction period of one year
2. Placement in a supportive school environment with senior teachers
3. A reduced teaching load, 0.8 of a fulltime load
4. A period of reflection
5. Review and informal appraisal and professional development
6. Formal appraisal for permanency or full registration (Chap. 2)

Many APEC members continue to explore how they can further enhance and develop these programs to meet the needs of beginning teachers in general, and beginning teachers working with specific populations, in specific subject areas, or in especially challenging (urban or rural) geographic locations, in particular.

Ongoing Professional Development

In most APEC members, efforts to upgrade standards for students have created new demands for investments in teacher knowledge. Most APEC members are faced with two equally challenging and important concerns in the development of a quality teaching force: (1) the recruitment, preparation, and induction of highly qualified new teachers; and (2) the ongoing growth and development of their existing teaching force. Balancing the educational needs and financial demands of supporting continuing learning for both groups is a concern in many member nations.

In this chapter the term *professional development* is used broadly and refers to a wide array of activities:

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workshops designed to introduce new policies and practices; activities designed to keep teachers abreast of new developments in education; ongoing in-school opportunities for collegial sharing, observation of other classes, and discussion of teaching; and courses to upgrade the qualifications of teachers. While all of these activities are viewed as important to APEC members in ongoing professional development, there are differences in terms of which activities are more prevalent and how professional development opportunities are structured.

As one example of the range of practice, Japanese schools provide teachers with 20 or more hours each week for collegial work and planning, visitations to other classrooms and schools, and demonstrations of teaching strategies. By contrast, U.S. teachers are allotted almost no in-school time for professional development or collegial work. Almost all professional development occurs in formal workshops or in courses after school, on the weekend, or on a small number of specially designated professional days.

Ongoing professional development programs may be supported at the national, state/provincial, or local government levels, and include university-based, non–university based, and school-site options. Ongoing professional development occurs within extensive formal structures in some APEC members. Some professional development opportunities, including those in Hong Kong, the Republic of Korea, and the People's Republic of China, are designed to upgrade the education levels and qualifications of the current teaching force. Professional development opportunities are also aimed at familiarizing teachers with national, state/provincial, and local curriculum developments. This was explicitly mentioned by Australia, Singapore, and New Zealand. Still other programs are concerned with helping experienced teachers keep pace with the ever-increasing knowledge base in subject areas and pedagogy, and with the use of technology as an aid in instruction.

Some APEC members cite increases in salary and career advancement as the major incentives for teachers to participate in professional development activities. A concern raised in the report from the Republic of Korea is the view that many teachers may prefer to participate in professional development activities in order to be promoted and/or to improve their earnings, but that these activities might not affect teacher growth and competence.

Some APEC members report a trend toward increasing expenditures and released time for professional development activities. New Zealand, for example, identified a 30 percent increase in funding for professional development between 1991 and 1993. In New Zealand in 1992, primary and secondary schools spent approximately $14 million on professional development. The bulk (53 percent per teacher) was spent on teacher released time.

In 1993, Australia announced the federally funded National Professional Development Program, which provides $60 million for staff development activities over a three-year period, in addition to that provided by teacher employers. Several Canadian provinces report an average allotment of 15 days per school year for activities other than teaching. In the United States, inroads toward funding professional development have been made in only a few states, where 5–10 days per year are allotted for teacher development. In general, U. S. school districts spend less than one-half of 1 percent of their budgets on professional development.

LICENSING (REGISTRATION) AND OTHER POLICY ISSUES

The diversity among APEC members regarding teacher preparation and professional development is reflected in the wide variety of approaches to governance structures, accreditation, the financing of teacher education, and licensing requirements. Central to these differences is whether teacher education is perceived as a national, provincial, state, or local responsibility, or some combination of these.

Licensing Requirements

In order to maintain standards for teachers, APEC members report a wide array of systems for teacher registration or licensing. (Unless otherwise indicated, the terms *registration*, and *licensure* are used synonymously to refer to government systems for ensuring minimal qualifications of candidates allowed to practice.) While licensing or registration systems are common, several APEC members have no licensure systems, including Singapore, the People's Republic of China, and Brunei Darussalam. In Singapore and Brunei Darussalam, there is one teacher training program under government control that maintains strict admissions and academic preparation standards. The People's Republic of China, too, has set up national requirements and standards for primary and secondary school teachers. Completion of a preparation program in these members constitutes authority to practice.

In Hong Kong, the Republic of Korea, Malaysia, and Chinese Taipei, teacher registration is governed by the ministry of education or national education department. New Zealand has a Crown (state) entity called the Teacher Registration Board whose function is to maintain a register of teachers. In New Zealand registration is not a compulsory requirement. However, being registered is considered favorably in hiring decisions and has a bearing on being recognized as a professional teacher. Most private schools require registration.

The United States, Australia, and Canada maintain state or provincial licensing systems rather than a national framework for licensing. In the United States, for example, state requirements vary so substantially that a teacher licensed in one state frequently does not meet the licensing requirements in another and is required to take additional coursework or meet other state-specific requirements on moving from one state to another.

However, even in members with decentralized education systems, the idea of national standards is becoming more prevalent in education discussions. An independent professional body in the United States, the National Board for Professional Teaching Standards, has recently begun to offer advanced certification for highly accomplished veteran teachers. (Certification in this case refers to professional recognition of advanced skills as the term is used in professions such as law, medicine, or architecture.) Additionally, over 20 states have joined together to develop model licensing standards and assessments for beginning teachers that are in line with the National Board's standards. In Australia, a new professional body for teachers was created in 1993. Among the responsibilities of this body is that of establishing professional standards for teachers and giving teachers a voice in professional development issues. In New Zealand, there is now a national register of teachers who have fulfilled certain additional professional requirements, similar to those kept for lawyers and medical doctors.

In many cases, APEC members have different license categories depending on position level, subject area, and school level and type. One highly differentiated approach is exemplified by Japan, where there are three types of licenses, or certificates: standard, special, and provisional. Standard certificates are the regular certificates granted to candidates who possess the appropriate number of subject-matter and education courses. There are three categories of standard certificates *(advanced, first-class, and second-class)* for each school level, except for upper secondary teachers, to whom only advanced and first-class certificates are issued. The basic requirements for an advanced certificate are a master's degree or one year's residence and 30 credits in a subject specialty. The basic requirements for the first-class and second-class certificates are a bachelor's and an associate's degree, respectively. There is also a *special certificate* "established to allow the utilization of individuals from society at large who possess special skills or expertise."

In Japan, in the rare cases where there is a shortage of teachers with standard certificates, those who have *provisional certificates* become assistant teachers. Typically, provisional certificates are issued to teachers who already have standard certificates for other categories. Both the special certificate and the provisional certificate have a limited lifetime and are valid only within the prefecture or province where they were issued. Special certificates are valid for a period of three to ten years, while the provisional certificates are valid for a period of three years.

In the Republic of Korea, teachers can obtain a higher-rank license, which means advanced professional ability, through in-service training. Teachers who get a higher-rank license receive an increase in salary. Teacher licensing consists of four structures or levels: *Grade 2 teacher, Grade 1 teacher, vice-principal, and principal*. In the absence of any probation, most teachers start at the Grade 2 teacher level. Higher-level licenses are based on both seniority and merit. Teachers can be promoted to a higher-rank license after completing 180 hours of in-service training. Also, promotion is based on a positive evaluation of such aspects as career, performance appraisal, and in-service training rating. Thus, teachers can be promoted from the classroom to the position of vice-principal or principal.

With the notable exceptions of Japan and the Republic of Korea, most APEC members' licensing structures tend to be flat rather than hierarchical. In the United States, for instance, licensing for teachers is not graduated, except that teachers without full preparation may receive provisional, temporary, or emergency licenses of various kinds. Teachers do have to acquire additional training and an administrative certificate to become a school principal. Requirements for teaching in private schools do not differ significantly from those for public school teaching. In some states, teachers in private schools have to be licensed, while in others they do not.

APEC members report differing license or registration renewal policies, ranging from two to three years in Australia in those states that require registration to lifetime registration/licensure in Hong Kong, the Republic of Korea, and Malaysia. In Chinese Taipei, teachers must re-register if they leave the profession for more than ten years. Until recently, most states in the United States had few requirements for teachers to satisfy once they were initially licensed. However, most states now disallow the "lifetime" license and require teachers to continuously renew their credentials every three to five years with additional formal college course work or in-service training.

While test scores are widely used to determine entry into teacher education programs in many APEC members, testing for licensure was not as widely discussed in most reports, with the exception of the United States and Chinese Taipei. In the United States, most states now require some form of testing for licensure upon completion of a teacher preparation program. The nature of these tests is now changing to include more performance-based methods. In Chinese Taipei, there is now a new law requiring all new teachers to be licensed, a process that involves doing an internship and passing a licensing test at the end of the internship.

Governance

The extent of government involvement in setting and guiding policy regarding teacher education varies widely. In the United States, Australia, Canada, New Zealand, and Japan, policy is not exclusively guided by one particular body, given the highly decentralized nature of education policy and teacher education programs in those countries. In the United States, for instance, teacher education programs are influenced by the colleges and universities in which they reside as well as by state government agencies and other state bodies, such as professional standards boards. Professional organizations of teachers and a national accrediting body are also very influential. By contrast, teacher education is centralized and the direct responsibility of the member-wide governments in Hong Kong, Malaysia, the Republic of Korea, Singapore, New Zealand, Chinese Taipei, and Brunei Darussalam.

In the People's Republic of China, policy guidance takes place at four levels: the State (National) Education Commission, the provincial education commission, the prefecture education commission, and the county-level education commission. The state is responsible for planning teacher training programs as a whole, and directly controls six key universities at which model teacher education programs are run. Local commissions are responsible for carrying out state policy and instructions. Divisions within provinces, regions, and municipalities are set up to make specific policies regarding the development of secondary teacher education, and to supervise and evaluate the implementation of policies concerning local normal schools.

Financing for Teacher Education

Teacher education is primarily funded by state/provincial governments, or national/central governments. In New Zealand, the United States, and Canada, teacher education is financed in part by state or provincial governments. In these cases, other forms of funding include student tuition, endowments, donations, and research monies. Preparation programs in Malaysia, Chinese Taipei, Singapore, and Brunei Darussalam are funded almost wholly by the national or central governments. In Australia, too, teacher education programs are funded by recurrent grants provided by the Commonwealth Government; however, each institution determines how the funds are allocated. In the People's Republic of China, there are variations in sources of financial support from the central government, depending on institutional level and type. Initial teacher education that is provided at normal universities and colleges is funded by the central government. Funding levels are determined according to the number of students enrolled in each institution. Funds for continuing or higher teacher education are provided by state budgets for higher education; normal colleges under direct provincial supervision are locally funded.

Though some APEC members have experienced overall economic growth in the last decade, others are faced with slow or zero growth. Balancing the recruitment and preparation of teachers with the upgrading and continuous development of experienced teachers has created considerable financial challenges for many.

Accreditation

In general, APEC members report three types of accreditation systems for teacher training programs and institutions: self-accreditation, government-supervised accreditation, and external professional accreditation.

Self-accreditation appears to be a form of assessment focused on the institution as a complete entity. The institution assesses itself against its own mission and goals. Self-accreditation systems are prevalent in New Zealand, Australia, and Hong Kong. In these cases, the process of accreditation is the responsibility of the college or university and is aided by a wide range of internal and external constituents, including employee examiners, peer review groups, and relevant employers and professional associations. Australia is currently examining a system of external accreditation through the newly formed Australian Teaching Council.

All teacher education programs in Malaysia, Chinese Taipei, and Japan are under the direct supervision of the government. In these cases, the government develops and maintains standards for entry, preparation, and graduation of new teachers.

Singapore's and Brunei Darussalam's teacher training institutions—the National Institute of Education, Nanyang Technological University, and the University of Brunei Darussalam, respectively—engage external examiners in the review of academic performance of graduates and in determining the quality of degree programs. In the United States, there is a dual-track system for reviewing teacher preparation programs. Each state plays a major role in deciding standards for entry, preparation, and the licensure of teachers and has a procedure for approving individual programs. Also, professional accreditation in teaching is conducted by an external, nongovernmental agency, the National Council for Accreditation of Teacher Education, through a peer review process involving external examiners. In most states, NCATE accreditation is voluntary.

TRENDS

APEC members report many strategies aimed at recruiting and retaining quality teachers, effectively preparing teachers in a rapidly changing global economy, and professionalizing the field of teaching. Efforts are under way to strengthen preparation programs and induction supports for new teachers. In addition, current licensure/ registration policy structures are under review.

While in some APEC members, teaching is a highly regarded occupation, most APEC members report that teaching is currently still a field with little opportunity for advancement and promotion; to advance in the field is to leave teaching. The number of administrators needed in the field is small and, other than salary increments or credentialing for advancement, there are reported to be few external incentives to participate in professional development activities.

In some APEC members, there are efforts to establish national frameworks for professional development to expand its use beyond licensure or registration and credentialing for promotion, and to encourage professional development as an integral and ongoing component of the profession. What is hoped for is a continuum of professional development and growth for teachers that spans the career from preparation to retirement.

In New Brunswick, Canada, and in the United States, a great deal of discussion has recently occurred on the need to create a career path that would focus on the "knowledge base and its practice," and would yield a coherent, progressive conception of teachers' growth toward highly accomplished practice over the course of the teaching career. In the United States, the recent creation of a system of voluntary National Board certification for veteran teachers who pass standards of accomplished practice provides a benchmark for this continuum. The report from the Republic of Korea notes the importance of creating a teaching-oriented career continuum that would reward teachers for becoming more accomplished by acknowledging levels of teaching expertise rather than by promoting teachers out of the classroom into administrative positions:

> It is urgent that a new teaching-oriented licensing system be established, reforming the current management-oriented licensing system, both to discourage administration-driven teacher expectations and to expedite professional development. One proposal ... would be to replace the present system with Grade 2, Grade 1, senior, and master teacher categories, eliminating the vice-principal and principal positions. (Chap. 8)

There is also an increased emphasis on revising and improving the nature and quality of teacher preparation. In Chinese Taipei, for instance, a new law "requires that all new teachers be licensed like lawyers and doctors." Prospective teachers are required to take an additional 20 credits beyond the required amount for the bachelor's degree. After completing coursework, students have to do an internship for one year. On completing the internship, candidates must pass a licensing test to become a licensed teacher. By the end of this century the People's Republic of China is hoping to increase the number of primary school and middle-school teachers with "state-issued certificates of schooling record and specialty qualification" to 95 percent and 90 percent, respectively, and to increase the proportion of teachers with a college education.

In 1993, Hong Kong began the first phase of reforms intended to improve the quality of teaching in primary schools. The intentions of the program are to increase the qualifications of at least 35 percent of primary school teachers to a bachelor's degree by the year 2007, and to turn colleges of education into an autonomous institution—Institute of Education—with powers to offer degree programs subject to external academic accreditation.

Teaching in most APEC members is a highly regulated profession. Efforts are under way in some APEC members (the United States, Manitoba and Quebec in Canada, and the Republic of Korea) to provide for greater professional authority and responsibility than is currently the case. Various initiatives are attempting to give teachers greater voice in creating standards for preparation, licensure, and practice in the field. Greater professional autonomy in teaching would require increased professional accountability. Consequently, means to ensure initial competence and continuing competence and growth are part of the accountability discussion in many APEC members. Continuous professional development is seen as an important part of greater professionalism by many.

There are efforts in some APEC members (the United States, Australia, and some provinces in Canada) toward greater collaboration among institutions of higher education, school districts, and teacher organizations in efforts to improve teacher preparation and support. Professional development school relationships and mentoring programs in the United States and Australia are examples of increased collaboration between schools and colleges of education. In New Brunswick, Canada, the department of education is collaborating with universities to revise the criteria for admission to the teaching profession, and "to change the preservice program in order to give greater attention to the study of teaching and learning.... It is also working with the universities, school districts and teacher organizations to revise the practicum and emphasize a team approach to professional growth."

APEC members are employing a number of strategies to achieve these goals and to combat teaching's flat career ladder. The more common strategies and trends include some combination of the following:

- Upgrading the level and quality of teacher preparation programs
- Fostering greater links between academic preparation and clinical experiences
- Providing induction or transition supports and training for beginning teachers
- Providing ongoing professional development opportunities
- Creating national frameworks to guide initial teacher preparation and ongoing professional development
- Creating forums to ensure teachers a greater voice in teacher preparation and professional development issues

Notwithstanding the differences in terms of approaches and emphasis, APEC members seem to be unified in their recognition of the importance of teachers in achieving their educational goals. Efforts to strengthen teacher preparation programs, supports for beginning teachers, and opportunities for the continuous development and growth of experienced teachers are evidence of the important role attached to teacher preparation and teacher development in national development.

2

Teacher Training and Professional Development in Australia

Submitted by: Teaching Policy Section, Schools and Curriculum Division, Department of Employment, Education and Training

CONTEXT

Definitions

Definitions for year (grade), age, and qualification to teach at different stages of Australian education are presented in Table 2.1. The definitions of preschool and school education, in terms of starting year or grade, differ among states and territories (defined in Table 2.1 as groups of states). Thus, group D students have one less year of secondary schooling than do students from other states.

Age levels are approximate. Formal (compulsory) schooling begins at the first year of primary school (year 1) in each state and ceases at age 15 (usually year 9 or year 10). Postcompulsory secondary education is provided for 16–18-year-olds and normally includes years 11 and 12 of school. About 76 percent of Australia's young people complete year 12. Postsecondary education comprises the university and vocational education and training sectors.

Educational Systems and Student Population

School Systems

The primary responsibility for delivering school education lies with state and territory governments. There are eight state and territory school systems, which are known as the *government sector*. Those schools not within a state government system are referred to as the *nongovernment sector*.

The major nongovernment systems are the Catholic education systems in each state. However, a large number of schools are run by other religious denominations and, together with a number of nondenominational, nongovernment sector schools—such as schools offering alternative approaches to education—they make up the diverse schooling sector of Australian education.

Generally, curriculum and senior school assessment are similar across sectors within a state. However, there are significant differences from state to state.

Since the mid-1980s, there has been devolution of greater responsibility from central system authorities to the school level, including growing parental involvement, greater local school autonomy in school management, and greater responsibility for teachers in senior secondary assessment.

The federal government provides significant supplementary funds to state government and to nongovernment schools. Funds for government schools are determined on a state basis, while funds for nongovernment schools are determined on a school system or individual school basis.

The federal government also addresses national priorities for schools and provides leadership in facilitating cooperative efforts between the various school sectors and other key players, such as universities and teacher organizations.

TABLE 2.1
Education Stages in Australia by Year, Length of Time, Age, and Qualification to Teach

	Year (Grade)	Years Taken	Age (Years)	Qualification To Teach
Preschool-A*	N/A	2	3 to 4	Post-school diploma
Preschool-B	N/A	3	3 to 5	"
Primary-C	Kindergarten to year 6	7	5 to 11	University degree
Primary-D	Year 1 to year 7	7	6 to 12	"
Secondary-C	Year 7 to year 12	6	12 to 17	"
Secondary-D	Year 8 to year 12	5	13 to 17	"
TAFE	Year 10 (junior secondary)	1 or more	15	N/A
University	Year 12 (senior secondary)	3 or 4	18	N/A
Preservice training	University		18	N/A

*Group A States: New South Wales, Victoria, South Australia, Tasmania, Australian Capital Territory, Northern Territory.
Group B States: Queensland, Western Australia.
Group C States: New South Wales, Victoria, Tasmania, Australian Capital Territory.
Group D States: Queensland, Western Australia, South Australia, Northern Territory.
Source: *National Report on Schooling in Australia (ANR)*, 1989.

The forum for this national collaboration and for the development and implementation of school education policy is the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA). The MCEETYA comprises federal, state and territory ministers for education, employment, training, and youth affairs.

Student Populations

In 1993, there were 9,865 schools in Australia, with 3,098,375 full-time students, most of whom (58.6 percent) were drawn from the primary level (see Table 2.2). The government sector was responsible for 71.9 percent of full-time students and 75 percent of schools. A significant number of students (19.3 percent) were located in Catholic systems.

Student Retention

Participation in the noncompulsory years of schooling has increased dramatically, with an increase in the year-12 apparent retention rate from 46 percent in 1985 to 76 percent in 1993.

Year-12 completion rates have also increased dramatically during this period, although they tend to be higher for urban areas and lowest for remote areas. The increase in completion rates has been fairly evenly distributed between areas of low and high socioeconomic status.

It is generally assumed that increased participation has altered the composition of the school student population over the past decade in terms of abilities and of cultural and linguistic background. In addition, there is a growing trend toward mainstream participation of students with disabilities. Australia's substantial immigration program has also resulted in a steady influx of students whose primary language is not English and who have different cultural assumptions and practices.

Postsecondary Education

Students who leave school at age 15 may seek entry into the vocational education and training sector, a large part of which lies within the government-funded Technical and Further Education (TAFE) system. Students undertake prevocational and year-12 courses, as well as preapprenticeship and work traineeships. Students who complete year 12 may seek entry to TAFE to obtain professional, paraprofessional, or trades qualifications. Those who also complete matriculation requirements may seek entry to university.

There is a wide range of subjects available to students who continue to year 12. They include matriculation subjects and those offered for general interest and special needs. Some subjects in year 12 can be credited for future study at TAFE. The range of subjects and methods of assessment vary across states and territories. However, in general, year-12 assessment is based on combinations of the following methods:

- Statewide syllabus external examinations
- An external, statewide scaling test set by an independent research body and designed to measure general skills
- Local, school-based assessment, determined by local teachers using exam results, assignments, observation, and so on
- Moderated school-based assessment where all state school-based assessments for the one subject are scaled, removing those variations in marks *not* due to differences in student achievement

TABLE 2.2

Number and Percentage of Full-time Students; Category of School (and Nongovernment Affiliation) and Level of Education, 1993, by State and Territory

Level of Education	NSW	Vic	Qld	SA	WA	Tas	NT	ACT(a)	Total
					NUMBER				
Government									
Primary	446,911	303,985	260,493	124,802	143,871	37,380	19,400	22,583	1,359,425
Secondary	311,064	222,651	143,770	59,818	78,580	27,347	7,437	17,964	868,631
Total	**757,975**	**526,636**	**404,263**	**184,620**	**222,451**	**64,727**	**26,837**	**40,547**	**2,228,058**
Nongovernment—Anglican									
Primary	7,335	6,781	3,899	3,661	899	879	26,616		
Secondary	15,800	17,622	8,416	3,874	6,828	1,904	2,656	57,100	
Total	**23,135**	**24,403**	**12,315**	**7,535**	**9,990**	**2,803**	**0**	**3,535**	**83,716**
Nongovernment—Catholic									
Primary	120,570	99,864	52,661	22,349	28,844	7,565	3,280	8,438	343,571
Secondary	96,028	73,767	14,175	20,313	5,531	1,397	7,333	225,716	
Total	**216,598**	**173,631**	**89,833**	**36,524**	**49,157**	**13,096**	**4,677**	**15,771**	**599,287**
Nongovernment—Other									
Primary	26,728	20,884	15,783	10,471	7,647	2,754	1,165	1,022	86,454
Secondary	27,660	32,043	21,537	8,077	7,494	2,381	1,193	477	100,862
Total	**54,388**	**52,927**	**37,320**	**18,548**	**15,141**	**5,135**	**2,358**	**1,499**	**187,316**
Nongovernment—Total									
Primary	154,633	127,529	72,343	36,481	39,653	11,218	4,445	10,339	456,641
Secondary	139,488	123,432	67,125	26,126	34,635	9,816	2,590	10,466	413,687
Total	**294,121**	**250,961**	**139,468**	**62,607**	**74,288**	**21,034**	**7,035**	**20,805**	**870,319**
All Schools									
Primary	601,544	431,514	332,836	161,283	183,524	48,598	23,845	32,922	1,816,066
Secondary	450,552	346,083	210,895	85,944	113,215	37,163	10,027	28,430	1,282,309
Total	**1,052,096**	**777,597**	**543,731**	**247,227**	**296,739**	**85,761**	**33,872**	**61,352**	**3,099,375**
					PERCENTAGE				
Government									
Primary	14.4	9.8	8.4	4.0	4.6	1.2	0.6	0.7	43.9
Secondary	10.0	7.2	4.6	1.9	2.5	0.9	0.2	0.6	28.0
Total	**24.5**	**17.0**	**13.0**	**6.0**	**7.2**	**2.1**	**0.9**	**1.3**	**71.9**
Nongovernment—Anglican									
Primary	0.2	0.2	0.1	0.1	0.1	0.9			
Secondary	0.5	0.6	0.3	0.1	0.2	0.1	0.1	1.8	
Total	**0.7**	**0.8**	**0.4**	**0.2**	**0.3**	**0.1**	**0.1**	**2.7**	
Nongovernment—Catholic									
Primary	3.9	3.2	1.7	0.7	0.9	0.2	0.1	0.3	11.1
Secondary	3.1	2.4	1.2	0.5	0.7	0.2	0.2	8.3	
Total	**7.0**	**5.6**	**2.9**	**1.2**	**1.6**	**0.4**	**0.2**	**0.5**	**19.3**
Nongovernment—Other									
Primary	0.9	0.7	0.5	0.3	0.2	0.1	2.8		
Secondary	0.9	1.0	0.7	0.3	0.2	0.1	3.3		
Total	**1.8**	**1.7**	**1.2**	**0.6**	**0.5**	**0.2**	**0.1**	**6.0**	
Nongovernment—Total									
Primary	5.0	4.1	2.3	1.2	1.3	0.4	0.1	0.3	14.7
Secondary	4.5	4.0	2.2	0.8	1.1	0.3	0.1	0.3	13.4
Total	**9.5**	**8.1**	**4.5**	**2.0**	**2.4**	**0.7**	**0.2**	**0.7**	**28.1**
All Schools									
Primary	19.4	13.9	10.7	5.2	5.9	1.6	0.8	1.1	58.6
Secondary	14.5	11.2	6.8	2.8	3.7	1.2	0.3	0.9	41.4
Total	**34.0**	**25.1**	**17.5**	**8.0**	**9.6**	**2.8**	**1.1**	**2.0**	**100.0**

Source: 1993 Schools Australia: Australia Bureau of Statistics.

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BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

In 1991, there were 199,532 full-time equivalent (FTE) teachers in Australian schools (see Table 2.3), as well as 46,827 FTE nonteaching staff (e.g., counselors, teacher aides, clerical and maintenance staff). Teachers are fairly evenly divided between primary and secondary levels. A majority (62 percent) are female, although this proportion is much higher for the primary than for the secondary level, especially in the nongovernment sector.

Nearly three quarters of all teachers (145,895) work in the government sector. The largest teacher employers are state governments. For example, 23 percent of all FTE teachers in Australia in 1991 were employed by the New South Wales State Government.

Australia is a highly urbanized nation and most teachers are employed in the major urban areas along the eastern and southeastern seaboard. However, in all states and territories, teachers in the government sector are actively encouraged to undertake a period of employment in rural and remote areas.

In 1989, a national sample survey, Teachers in Australian Schools (TAS), was undertaken by a research team from the University of Queensland to examine the characteristics and qualifications of Australian teachers. Data were gathered by questionnaire from separate national samples for primary and secondary teachers, each stratified by state and sector. The total sample size was 9,895, with a response rate of 65.4 percent (6,478).

The average age of teachers surveyed was 37.4 years, with two-thirds aged between 31 and 50 years. The age profile was somewhat younger for the nongovernment sector.

Almost half (46.7 percent) of those surveyed reported four or more years of preservice training. Nearly one-third (31.6 percent) completed three years of preservice training, obtaining either a degree or a diploma, while the remainder had completed one to two years of training. The latter group varied across states.

Teachers are registered to teach, either by a statutory board in some states, or by employers themselves. Registered teachers are generally recruited centrally in both the government and the Catholic school systems, and then allocated to schools. In the case of some nongovernment schools, teachers are recruited individually by school boards.

Under devolution policies being introduced in some government school systems, regional managers may be given some responsibility for recruiting new teachers. School principals in some states already have significant responsibility for selecting replacement teachers for their schools.

The TAS survey indicated that in 1989, 90 percent of teachers were employed on a permanent, full-time basis, with the remainder on temporary, or short-term contract basis. The proportion of the latter groups varied across states.

The lack of uniformity in registration requirements, the industrial relations framework, and the political preference to offer employment to locally trained teachers all have helped create state-based teacher labor markets, making it difficult for teachers to move easily from one state to another. It is generally easier to move between different sectors within the same state, although conditions of service entitlements may not be transferable.

TABLE 2.3
Australian FTE* Teachers by Sector, Level, and Gender, 1991

	Male	Female	Persons
GOVERNMENT			
Primary	20,474	53,742	74,216
Secondary	36,353	35,327	71,679
Total	56,826	89,068	145,895
NONGOVERNMENT			
Primary	4,942	17,621	22,564
Secondary	14,598	16,476	31,074
Total	19,540	34,097	53,638
TOTAL			
Primary	25,416	71,363	96,779
Secondary	50,951	51,803	102,753
Total	76,367	123,166	199,532

*Estimated full-time equivalent staff. Does not include special support, teacher aides, and nonteaching staff.
Source: *ANR Statistical Annex*, 1991.

Characteristics of Teaching Employment

Under Australia's industrial relations framework, salaries and conditions for teachers are determined through a system of conciliation and arbitration. Generally, salaries and conditions for government and nongovernment teachers are set out in state industrial *awards*, or contracts, which are adhered to by all but a few smaller employers in the nongovernment sector.

However, an emerging trend in Australia is the development of enterprise bargaining, in which employees and employers negotiate directly on wages and conditions. Enterprise agreements already have been negotiated and implemented in a small number of nongovernment schools.

One state government recently abolished the process of conciliation and arbitration in that state, ended the state teaching award, and introduced direct contracts for government teachers. In response, teacher unions are seeking to obtain an award at the federal level. If successful, this may lead to federal awards for all teachers.

In general, classroom teacher salary levels are incremental and based on qualifications and years of service. The top salary increment level, referred to as the *benchmark level*, is now almost uniform across Australia at A$38,950 for most states. However, there are differences in increment levels between sectors and states.

Outstanding classroom teachers may be promoted to the new Advanced Skills Teacher (AST) classification. AST salary levels are fairly consistent across Australia, ranging from A$38,242 to A$41,205. Teachers may also gain promotion into executive or administrative positions in schools, or into administrative positions in state Education Departments or Catholic Education Commissions.

Government-sector teachers have access to state government superannuation schemes (to which employers make a contribution) for retirement income. Nongovernment teachers may have access to similar funds or else make private arrangements. All teachers are eligible for benefits available through federal government programs. Health coverage is provided under the compulsory national medicare system, supplemented by voluntary private health insurance, while all retired persons who satisfy a means test are eligible for a pension.

Australian teachers in the government sector, and most in the nongovernment sector, enjoy a high level of employment stability. Except for individual cases of incompetence, negligence, or other unacceptable behavior, major employers rarely dismiss teachers. When required to reduce teacher numbers, they usually restrict the intake of new teachers, or offer voluntary redundancy packages to older teachers.

Many teachers belong to either a government sector- or nongovernment-sector industrial union at the state level, which in turn are affiliated with national government- and nongovernment-sector teacher unions. Of those surveyed for the TAS, 61 percent belonged to an industrial union (higher for the government than nongovernment sector).

Historically, teacher unions have been very active in seeking to improve teacher salaries and conditions, and have been heavily involved in more general school-related issues. Unions are formally recognized in the conciliation and arbitration process.

The TAS also indicated that 38 percent of teachers belonged to subject associations. These provide professional development support for teachers in specific subject areas, but otherwise are not involved with professional issues.

In late 1993, the Australian Teaching Council (ATC), a new professional body for teachers, was established. Some of the responsibilities of the council will be to:

- Provide a national voice for teachers
- Help develop a system of national teacher registration
- Improve initial teacher education and develop guidelines for best practice in relation to induction and probation
- Improve professional development
- Establish professional standards, as well as rights and obligations for teachers

The ATC will not be involved in negotiating salaries and employment conditions; it will focus instead on professional rather than on industrial issues.

Patterns of Supply and Demand for Teaching Positions

The demand for teachers fluctuates according to a number of factors. These include:

- Funds available to employers
- Separation rate of teachers (resignations, retirements, etc.)
- Trends in student enrollment
- Employer policies regarding class size, promotion structure, introduction of new curriculum areas, and so on

Some of these are in turn influenced by factors such as the current labor market for alternative occupations, the age profile of the current teaching force, and availability of alternatives to resignation (e.g., leave provisions).

For a number of years, the overall demand for teachers has been exceeded by the supply of teacher graduates at the national level. However, this pattern has varied considerably according to school level, subject area, and geographical area. The existence of state-based labor markets has led to significant differences in the demand for teachers across states, such that teacher shortages and surpluses can occur simultaneously in different states. There are also considerable regional differences. The demand for teachers is usually higher in remote areas than in coastal regions.

Generally, demand has been relatively low for primary teachers and secondary teachers of humanities and social science. However, there have been consistent shortages of qualified secondary teachers in mathematics and science across all states, and there is a growing demand for teachers qualified in Asian languages.

Recruiting strategies for areas of shortage have included:

- Retraining current teachers to teach new areas, e.g., primary teachers retrained to teach secondary subjects
- Recruiting nonteachers with tertiary qualifications in mathematics and science and providing short-term education training
- Recruiting qualified teachers from overseas

A suggestion within one state system to pay math and science teachers a higher level of salary was discussed but not implemented. There is considerable teacher support for salaries to be ranked according to existing criteria rather than varied according to specific subject areas.

Data from the 1991 Graduate Destination Survey, which focuses on the first destination of graduates in the labor market a few months after the completion of their course of study, is provided in Table 2.4. The groups that would be expected to include most of the graduate teachers (e.g., arts, science, and education) had a lower proportion of graduates in full-time employment (from 54 to 65 percent) than other groups.

Data available from other national surveys, which were carried out between 1984 and 1990, suggest that about 50 percent of university graduate teachers had obtained full-time employment at the time they were surveyed.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

Prior to 1972, most teacher education was provided by Teachers' College institutions, which were controlled by state education authorities. The numbers of students enrolled varied in response to each state's perceived staffing requirements.

After 1972, teacher education was provided by autonomous Colleges of Advanced Education, resulting in a major change whereby the employer authority was separate from the training authority.

Since then, Colleges of Advanced Education have amalgamated with universities or with other higher education institutions. This has resulted in a rationalization of the number of teacher education courses available.

Thirty-five of the 37 higher education institutions in Australia offer teacher education courses. Enrollment numbers per institution vary considerably. In 1993, they ranged from 269 to 2,852 per institution.

Teacher education funding is derived from recurrent grants provided by the Commonwealth government for the general operation of higher education institutions. Institutions are autonomous and determine the detailed distribution of these resources among their activities. In 1992, approximately A$420 million was allocated to teacher education, A$310 million to preservice education, and A$110 million to professional development. This represents 4.2 percent of the total expenditure of Commonwealth funds in the higher education and school education sectors.

Policy Guidance

The highly devolved nature of the education systems in Australia, together with the autonomy of higher education institutions, means that preservice and inservice teacher education is not exclusively guided by the policies of any one particular body.

The Commonwealth government has in place a number of strategies that, through its funding initiatives,

TABLE 2.4
Full-time Employment Rate of 1990 Graduates in Australia by Field of Study, 1991

	Employment Rate (%)
Agriculture	73
Architecture	61
Arts	54
Business	75
Education	65
Engineering	74
Health	91
Law	91
Science	65
Vet Science	88

Source: 1991 Graduate Destination Survey.

seek to influence the future direction of these programs. They are described in the last section of the chapter.

Accreditation/Approval

Generally, courses are self-accredited by universities themselves within an agreed-on framework that requires:

- Periodic assessment
- Guarantee of appropriateness of staff experience, and of qualifications and facilities available
- Minimum standards for admission and levels of competence achieved, and national standards of course length and nomenclature

Assessment is usually undertaken in consultation with relevant employers, professional associations, and other bodies.

The Commonwealth government, while not an employer of teachers, does exert some influence over teacher education. This is achieved through the funding of special projects that further the implementation of national initiatives. The recently formed Australian Teaching Council (see previous section on characteristics of teacher employment) may accept the accreditation of teacher education courses as one of its responsibilities for the future.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

Although teacher education courses differ across the country, there are common threads from which a common goal can be formulated.

This common goal is to produce graduate beginning teachers who are professional in their knowledge, competence, and attitudes, that is, teachers who are:

- Knowledgeable about their subject discipline, their pupils, the curriculum, and pedagogy
- Resourceful and adaptable to change and able to reflect on their teaching practices
- Informed in their judgments, rational in their decisions, ethical in their behavior, and accountable for their actions

In an effort to further articulate these outcomes, National Competency Standards for beginning teachers are being prepared. These competencies have been developed in close consultation with teachers, teacher educators, and employers, and will be useful in developing curriculum for initial and in-service training of teachers. The draft framework identifies five areas of competence for teachers:

- Using and developing professional knowledge and values
- Developing relationships and working with others
- Planning and managing the teaching and learning process
- Monitoring and assessing the teaching and learning process
- Reflecting, evaluating, and planning for continuous improvement

Academic Preparation Prior to Preservice Teacher Education

Admission to teacher education courses, in the main, depends on an appropriate tertiary entrance score. Each student is given a score based on their year-11 and year-12 assessments at secondary school. Individual higher education institutions determine the minimum score under which students will not be accepted into a course. These scores may vary across institutions, even for the same subject disciplines.

Quotas, set by the institutions after consultations with state higher education advisory bodies, exist for all education courses.

Institutions do not generally interview prospective teacher education students. There may be exceptions in religious institutions—where an indication of a person's faith may be considered important to their work as a teacher—or in some institutions with small intakes of teacher education students.

There is concern that poor employment prospects and poor publicity for teaching may result in a drop in demand for places in teacher education. This has so far not been the case. There is, however, some real concern that teacher education courses do not attract entrants with academic achievements comparable to those of entrants in most other professions.

Nature and Content of Preservice Teacher Preparation Curricula

The general pattern for secondary teacher preparation involves either a university degree (three or four years) specializing in the subject disciplines to be taught, followed by a one-year Graduate Diploma of Education program, or a four-year Bachelor of Education degree program, which integrates studies in subject disciplines, education, and teaching practices.

Recently, the trend for secondary-trained teachers is toward the phasing out of integrated courses and the revitalization of Graduate Diploma courses. Some universities are looking at two-year, add-on courses (rather than at the traditional one-year course) to enable students to spend more time in the classroom to integrate their pedagogical, individual discipline, and practical experiences.

Most primary and early childhood students have, in the past, undertaken a three-year diploma course or a three-year Bachelor of Teaching. This is gradually changing, so that as of 1994, most primary courses will become four-year Bachelor of Education degrees, which integrate subject disciplines with pedagogical studies, and offer extended practicum experiences in the final year. Some universities are also investigating the training of primary teachers using the secondary Graduate Diploma model.

Practicum arrangements differ enormously. The number of school experience days required in different states or territories ranges from 50 to just over 100. Although there is general agreement that more is better than less, the cost of supervising students in schools constrains the extent of the school experience.

To overcome this, some teacher education faculties have collaborated with schools, unions, and teacher employers to develop an extended practicum; for example, one day a week all year, four days a week for a term or a semester, or every day for a term. In this situation, teachers have agreed to waive the supervision payment in return for nonfinancial benefits, such as requiring less classroom time to free teachers for other activities—that is, attending courses for accreditation toward a higher degree.

During an extended practicum—or *internship*, as it is often called—students are expected to undertake all the responsibilities associated with having a full-time teaching position.

Assessment of a student's practicum performance is carried out mainly by the supervising teacher. In some courses, university lecturers also observe the student in the school and have input into the final assessment. There is usually no attempt to seek parity of assessment outcomes across institutions, or even within the same institution.

Differences in the Nature and Content of Teacher Preparation Programs

Overall, there is considerable variation in teacher preservice training across institutions, for example, in:

- The amount of time required for initial training courses, especially for primary preparation
- The number of required days of practice teaching undertaken by trainee teachers
- The proportion of practical and theoretical components of teacher education courses.

Teacher education courses within a state are closely aligned to the state curricula and to educational practices in which they operate.

Status of Teacher Education Curricular Standards

Under the terms of the Australian constitution, state and territory governments are responsible for education in their regions. They are the largest employers of teachers, set curricular frameworks, provide most of the professional development for their teachers, and work with higher education institutions to determine the content of university courses.

The federal government, while not an employer of teachers, provides state governments with funds for education, and consequently plays an important part in setting policy.

For some time, efforts have been made at the federal level to bring together all the stakeholders in education in order to standardize education outcomes across the country. National Competency Standards for beginning teachers are being formulated (see section above on teacher preparation), national curriculum statements and profiles have been devised, key competencies—to be achieved by all students—have been identified, and work has commenced on establishing the Australian Vocational Certificate. See the last section in this chapter for further details.

The best of teacher education courses incorporate state and territory education initiatives and federal government priorities. Universities are encouraged to apply for federal grants that further the national agenda. For example, during 1993, universities conducted summer and winter schools for teachers where they were instructed about the national curriculum statements and profiles, and about other national initiatives. federal funding has also been used by universities for *discipline renewal* courses for teachers, covering mathematics, secondary science, and Australian history. Beginning in 1994, universities have been able to apply for funding to conduct similar professional development courses in the areas of English, physical education and health, primary science, and technology.

LICENSING

Initial Requirements

In general, teachers who seek employment in the government sector, and most schools in the nongovernment sector, must be registered in that state. Registration is determined either by a statutory body (established under state legislation) or by employers, usually during the recruitment of teachers. In most cases, registration has minimum requirements. An outline of the registration process is given in Table 2.5.

TABLE 2.5

Outline of the Registration Process by State and Sector

Statutory Registration	Employer-regulated with Minimum Requirements	Employer-regulated Without Minimum Requirements
	GOVERNMENT	
Victoria Queensland South Australia	New South Wales Western Australia Australian Capital Territory Northern Territory Tasmania	
	NONGOVERNMENT	
Victoria Queensland South Australia Tasmania	Australian Capital Territory Northern Territory Western Australia*	New South Wales Western Australia**

*The WA Catholic Education Commission.

**Independent, nongovernment schools in WA (i.e., excludes Catholic Education Commission).

Source: D. McRae, *A National Teaching Council for Australia*, NPQTL, 1992.

TABLE 2.6

Registration Criteria by State and Sector

	NSW	VIC	QLD	WA	SA	TAS	NT	ACT
			GOVERNMENT					
Unregistered			X					
3-year training	X	X (a)	X	X	X		X	
4-year training		X (b)				X	X	X
Provisional (training)		X	X	X	X		X	X
Provisional (experience/ appraisal)			X		X			
Registration categories		X		X		X		
			NONGOVERNMENT					
Unregistered/no qualifications	X	X	X	X				
3-year training		X (a)	X	X (c)	X	X	X	X
4-year training		X (b)		X (d)			X	
Provisional (training)		X	X		X	X	X	
Provisional (experience/ appraisal)			X		X			
Registration categories		X			X	X	X	

(a) Primary teaching.

(b) Secondary teaching.

(c) Catholic primary teaching.

(d) Catholic secondary teaching.

Source: D. McRae, *A National Teaching Council for Australia*, NPQTL, 1992.

In general, the statutory Teacher Registration Boards include representatives of the state Ministry (or Department) of Education, teachers and nongovernment employers, where relevant. One state also includes representatives from universities and parents' associations.

In two states, registration for the government sector is determined by nonstatutory bodies that have a similar structure to the Registration Boards. For the remaining employers, qualification to teach is determined as part of the recruitment process.

The general criteria for registration are set out in Table 2.6.

Full registration is generally dependent on minimum qualification requirements, although unregistered teachers can be authorized to teach in certain circumstances in Queensland. Persons without teaching qualifications may be registered as specialist teachers in Victorian nongovernment schools, while persons without qualifications may be registered for nongovernment schools in some other states, although in these cases, future salary increases and promotion would be dependent on obtaining qualifications.

Most authorities allow provisional registration where teachers have begun—but not completed—teaching qualifications. In addition, final registration is also subject to a successful completion of a minimum period of teaching, in some states involving, at times, appraisal or probation.

Some states have separate registration categories for teachers with primary, secondary, and specialist qualifications. One state allows registration restricted to certain subject areas.

There is no nationally consistent process of teacher registration, although some states have bilateral agreements in relation to government-sector teachers. There are considerable minor differences between employers—for example, in the areas of registration periods, documentation requirements, and assessment of previous teaching experience. One state requires formal testing of language competency.

At present, state and territory governments are reviewing their legislative registration requirements for a wide range of occupations. It is expected that for many occupations, those requiring registration in one state will automatically receive mutual recognition in all other states. It is anticipated that teaching will be included in this process.

In the longer term, it is envisaged that the Australian Teaching Council will develop a national teacher registration process. There is no guarantee that employers will accept this classification.

Licensing Reauthorization

The period of authorized registration varies: from one-to-three years to permanent status. It is not known whether re-registration is automatic in these circumstances, or whether a specific process is followed.

Status of Qualifying Conditions

As indicated above, nongovernment authorities in a number of states have the flexibility to register or employ persons with little or no formal teaching (or other) qualifications. This may occur to fill a serious shortage (e.g., specialist teachers) or because some schools (e.g., religious schools) seek teachers with other qualities.

ON-THE-JOB TRAINING AND DEVELOPMENT

Postqualification Processes

Across Australia, defined periods of induction, transition, or on-the-job training mainly devolve to regions or to individual schools, and the process is not dealt with in any uniform way.

The Australian Education Union does, however, have policy guidelines, which it adopted in 1991. These include the following:

- An induction period of one year
- Placement in a supportive school, with senior staff responsible for the induction program
- A reduced teaching load
- A period of reflection, review, and informal appraisal and professional development
- Formal appraisal for permanency or full registration

The small amount of research conducted in Australia indicates that few teachers experience a formal induction program, although large numbers receive some informal help, such as a friendly chat or a tour around the school. Many others do not even receive this.

The importance of this phase of teacher education is now being recognized across Australia.

Professional Development Opportunities

A wide range of in-service professional development activities are undertaken by teachers. They include:

- Courses delivered at different levels—that is, school-based, systemwide, professional subject associations, and universities
- Courses designed for differing needs, including those of individual teachers, specific school needs, and emerging system needs
- Courses varying from short-term, informal courses to long-term, formal courses where a certificate, diploma, or degree is awarded

Until recently, professional development activities were the sole responsibility of the various systems within individual states and territories. Priorities for content, frequency, and funding have therefore varied across Australia.

Universities have contributed by upgrading courses for two-year trained teachers to three-year trained teachers, as required by systems across Australia. Most recently, the trend has been toward upgrading three-year Diploma courses to four-year Bachelor of Education degrees. The offering of master's and PhD degrees in education also has become more widespread in the last ten years.

In 1993, the federal government announced the National Professional Development Program (NPDP), which will provide A$60 million over the next three years to enhance professional development activities for teaching staff in Australian schools. Education systems, universities, and teacher organizations can apply for funding under this program, which aims to improve educational outcomes for young people, including students experiencing educational disadvantage.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Present Concerns for Change and Improvement

Toward the end of 1992, the Commonwealth Department of Employment, Education, and Training released a discussion paper on teacher education. The following issues were raised:

- Concern over the lack of recent teaching experience on the part of teacher educators
- The relevance of teacher education programs, particularly the need for practical pedagogical orientation in course content, the amount of training time spent in the classroom, and the need to keep pace with the substantial changes occurring with curriculum
- The need for teachers to keep abreast of content knowledge
- The need for a national framework for professional development that will meet both the wide and growing range of professional needs for teachers and the specific training needs of principals, with the trend toward self-managing schools

Present and Long-Range Plans for Improvement

Since 1989, the federal government has focused strongly on improving the quality of teaching through a number of policies. The federal government brought together the key parties involved in teacher award restructuring at the national level. The aim was to improve the quality of teaching, with attention to both teachers' skills and their qualifications, and through changes in remuneration and career-path policies.

As a result, state Ministers of Education agreed to a national salary benchmark for four-year trained teachers, and agreed on establishing the category of Advanced Skills Teacher (see previous section on characteristics of teaching employment). The federal government agreed to assist government and nongovernment authorities in meeting the additional financial costs from teacher award restructuring.

In collaboration with government and nongovernment teacher employers and teacher unions, the federal government helped to establish the National Project for the Quality of Teaching and Learning (NPQTL). The NPQTL, which concluded its work in December 1993, brought together in one forum the key parties involved in the quality of teaching and learning. The main areas of activity were:

- The National Schools Project, which involves schools in action research projects, investigating how changes in work organization for teachers can lead to improvements in student learning outcomes. In 1994, this project will continue as the National Schools Network, with involvement from all states and territories.
- The establishment of the Australian Teaching Council, a national professional body for teachers, which will have a voice in such matters as teacher preservice education, in-service training, registration, and professional conduct (see previous section on characteristics of teaching employment).
- The development of National Competency Standards for beginning teachers (see previous section on goals of the teacher preparation system).

Other reforms that will impact on professional development for teachers and principals, as well as on changes to teacher preservice training, include:

- The work of the Finn and Mayer committees, which will result in the integration of key employment-related competencies into all curricula
- The introduction of the Australian Vocation Certificate in secondary schools, which is designed to expand opportunities for students to begin vocational training and experiences at school
- The introduction across Australia of common curriculum statements and profiles for eight key learning areas
- The implementation of the National Policy for the Education of Girls in Australian Schools

During late 1993, an accord was struck between the Commonwealth government, the Australian Education Union, and the Independent Teachers Federation. Part of the agreement relates to professional structures and career development for teachers. It includes support for the Australian Teaching Council, the continuation of the National Schools Project as the National Schools Network, and support for the work associated with the National Competency Standards for beginning teachers.

3

Teacher Training and Professional Development in Brunei Darussalam

Submitted by: Ministry of Education

CHARACTERISTICS OF TEACHER PREPARATION INSTITUTIONS

The Universiti Brunei Darussalam

The idea of establishing a university in Negara Brunei Darussalam first came up during a comprehensive review of the country's higher educational needs in 1976. Subsequent discussions led to the appointment of a steering committee, which, with the assistance of the British Council, engaged a group of experts to study and advise on the establishment of an institution of higher learning in the country. Once academic links with several overseas universities were set up, English-language and Malay-language medium first-degree programs were designed. In 1985, His Majesty Sultan Haji Hassanal Bolkiah Mui'zzadin Waddaulah, Sultan and Yang Di-Pertuan of Negara Brunei Darussalam, and the Universiti Brunei Darussalam (UBD) Chancellor, formally announced the establishment of the University with an initial intake of 176 students.

Governance of the university rests mainly with the University Council. The Chief Executive Officer, who directly controls the activities of the university, is the Vice Chancellor, who is ably supported by the Permanent Academic Adviser and Registrar in managing and administering the affairs of staff and students. The academic programs are offered by five faculties: Arts & Social Sciences, Education, Management & Administrative Studies, Islamic Studies, and Science. These faculties are administered by a dean, a deputy dean, and heads of departments.

The Faculty of Education

The education of teachers and their regular supply to the rapidly expanding school system in terms of absolute numbers, and the growing multiplicity of specialized areas, have become major priorities of the Ministry of Education in Negara Brunei Darussalam. The Bruneization policy and the state's policy to "accelerate human resources development" to meet the demands of an increasingly sophisticated economy, together with the bilingual policy of the Ministry of Education (MOE), warrant an urgent and aggressive demand for efficient and effective teacher education.

At present, the Universiti Brunei Darussalam is the sole institution in the country entrusted with the responsibility of meeting many of the ministry's needs. Among these are professional preparation and upgrading of students by offering them courses at the certificate, degree, postgraduate, and master's levels. In addition, UBD also sees its responsibility as updating the skills and knowledge of teachers and education personnel in the Ministry of Education through continuing education and in-service education programs.

While the Universiti Brunei Darussalam has the overall role of organizing teacher education in response to the MOE's requirements, the Faculty of Education (FOE) is given the principal role of professionally preparing teachers for schools in Negara Brunei Darussalam. Teacher educators in the FOE at present comprise local and expatriate staff, recruited internationally to provide the necessary training for preservice and in-service teachers.

The needs of the ministry by and large have been expressed in quantitative and operational terms. That is, requests from the ministry are channeled to UBD in terms of the number of teachers required and the types of teachers needed in the areas and levels of specialization.

The subsequent direction in which teachers' education programs are developed and the philosophic and qualitative aspects of such programs are formulated in consonance with the aspirations of the country and of its overall plan. It is also recognized that teachers working in the primary and secondary schools need subject content in varying depth. They also need a clear grasp of the skills to be applied to the processes of learning the content. The challenge is to provide them with a balance between process-oriented and a purely content-oriented curriculum. There is an authentic collaboration among the university's academic scholars in the discipline of education and other subjects.

NATURE AND CONTENT OF TEACHER PREPARATION

The teacher education programs and the number of students enrolled in each can be seen in Table 3.1. There are three degree programs and they cater to both the English-language medium and Malay-language medium students. The B.A. Education (TESL, Geography, Economics), B.Sc. Education (Maths, Biology, Chemistry, Physics), and B.A. Primary Education are all conducted in the English language. The B.A. *Pendidikan (Sejarah, Bahasa Melayu, Kesusteraan Melayu)*, B.A. *Pendidikan Pengajian* Islam, and B.A. *Pendidikan Rendah* are all taught in Malay language. The degree programs are of four-year (eight semester) duration for preservice education students and from three (six semesters) to 3.5 (seven semesters) years for in-service teachers.

Certificate and Post-Graduate Certificate in Education (PGCE) programs are also offered for serving pri-

TABLE 3.1
Education Student Enrollment, 1990–1993

	1993/94 Intake		1992/93 Intake		1991/92 Intake		1990/91 Intake		
Education Program	Pre-service	Up-graders	Pre-service	Up-graders	Pre-service	Up-graders	Pre-service	Up-graders	Total
ENGLISH MEDIUM									
BSC Education	13	—	16	—	26	—	21	—	76
BA Education	3	11	15	11	22	7	1	24	94
BA Education (Islamic Studies)	3	—	—	—	—	—	—	—	3
BA Primary Education	33	21	1	34	—	41	—	—	130
MALAY MEDIUM									
BA Pendidikan	17	18	—	24	—	20	—	23	104
BA Pendidikan (Pengajian Islam)	15	17	16	14	11	12	2	10	99
BA Pendidikan Rendah	—	—	25	—	29	—	27	—	86
OTHER PROGRAMS									
PGCE (secondary English)	24	—	—	—	—	—	—	—	24
PGCE (secondary Malay)	19	—	—	—	—	—	—	—	19
PGCE (secondary Irk)	7	—	—	—	—	—	—	—	7
PGCE (primary)	12	—	—	—	—	—	—	—	12
CERTIFICATE PROGRAMS									
Early Childhood Ed.	—	17	—	—	—	—	—	—	17
Education	52	—	63	—	59	—	—	—	174
Teaching Malay Language	—	29	—	—	—	—	—	—	29
Educational Management	—	26	—	—	—	—	—	—	26
MASTER'S DEGREE									
Master of Educational Management (M.ED M)	—	26	—	—	—	—	—	—	26
Total	198	175	136	83	147	80	51	57	926

mary and secondary teachers, as well as for religious education teachers. Preservice students pursue a three-year Certificate in Education program, which enables them to become primary teachers after certification. The Postgraduate Certificate in Education programs are for secondary serving teachers in the primary or secondary levels. Other PGCE programs cater to religious teachers' training for teaching Islamic Religious Knowledge (IRK) in primary or secondary schools. At these levels, IRK is a compulsory subject for students, from primary 1 to upper-secondary level. Certificate and PGCE students follow either a two-semester or a three-semester PGCE/Certificate model in their areas of specialization. Due to the university's limited facilities in the present temporary campus, the intake of students in one academic year per program is limited to only 15–20 students, except for the Certificate in Education preservice students, whose intake has always been about 50–60. All of the students are government-sponsored scholars.

Universiti Brunei Darussalam is a government institution and is wholly financed by the government.

Policy Guidance

UBD's response to the ministry's needs has been quantitative in kind and largely implemented in operational terms. Such a response has been dictated by pragmatism and immediacy and has proved adequate up to a certain point, when the needs are small. With the expanding needs of the ministry and the increasing complexity of its requirements logistically and qualitatively, UBD's response in the next planning period of five years may have to be different. There is now a perceived need for a formal policy for teacher education in Brunei and a more explicitly stated set of expectations, including projections of needs for the next two or three cycles of training.

Accreditation/Approval

The academic performance of the graduates and the quality of the degree programs are examined by External Examiners. This system ensures that the degrees awarded in similar courses by international universities are comparable in standard with those of UBD. The system also ensures that the assessment and classification of degrees awarded are fair.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

Any educational program may be viewed as a deliberate intervention, designed to achieve selected broad goals and related specific objectives. The goals and related specific objectives of the teacher education programs are the most important curricular criteria, for they provide standards, or guidelines, on which are based the designs for these programs.

The main purpose of the Faculty of Education is the preparation of personnel for teaching, educational administration, and other related fields in primary and secondary schools. The FOE sees its responsibility in teacher education as crucial to the overall quality of education in Brunei Darussalam. Essential to the successful pursuit of teaching according to today's standards is a knowledge of the nature of teaching, of learning the processes involved in the function of education in a changing Asian-Islamic society, and of the management of educational institutions in accordance with modern educational thinking and practices. The courses offered are designed to produce graduates who would be well qualified as teachers and officers in a wide range of positions in the country's education system.

In addition to the preparation of teachers, another goal of the Faculty of Education is the acquisition, and extension, of the store of fundamental knowledge about the educational enterprise. Through the continuous study of educational problems by academic staff, the Faculty of Education hopes to increase existing knowledge about education, particularly in the Brunei Darussalam context.

Given such aims and goals, it is clear that the Faculty of Education is obligated to prepare teachers with multiple professional competencies. Graduates in the teacher education programs are expected to acquire proficiencies in at least five areas.

First, they are to be models of competence in communication, using either the Malay or English languages, or both. Second, they are to be exemplary practitioners of the tenets of Islam and effective transmitters of the values and cultural norms of Brunei Darussalam society. Third, they are expected to become professionals who are self-confident, creative, innovative, and sensitive to the needs of the fast-changing society. Fourth, they are to be teachers who have acquired the ability to assume multiple roles as educational leaders in their community and country. Fifth, they are expected to acquire and develop skills needed to put into operation multifarious roles they are expected to assume, both in and outside the classroom and school.

The aim of the new B.A. Primary Education and Certificate in Education Programs introduced for the first time in August 1993, after a comprehensive review of the programs, is to "train qualified and competent teachers dedicated to their work and responsive to the needs of the country." Specifically, the programs will produce graduates who are

1. Equipped with a strong foundation of knowledge necessary for the overall training/teaching of their pupils
2. Equipped with the basic pedagogical skills that would enable them to effectively impart knowledge and facilitate the general development of their pupils in terms of attitudes and values
3. Equipped with analytical and creative thinking skills to enable them to solve day-to-day problems related to their profession
4. Confident, flexible, sensitive, and able to enjoy their work and take pride in their profession

In summary, the teacher education programs in the FOE aim to produce teachers who are skillful, well informed, and reflective strategists with specialized skills and attributes that make them effective instructional decision makers in the classroom. These skills and attributes comprise four areas of competence that we consider essential for a teacher. These include the following:

- The display of attitudes that foster learning and genuine human relationships
- Confidence and adequacy of knowledge of the subject matter to be taught
- In-depth theoretical knowledge about learning and human behavior
- Control of skills of teaching that facilitate and enhance student learning

Academic Preparation Prior to Preservice Teacher Education

The university admission requirements for degree programs are as follows:

- Four credit passes in the Brunei/Cambridge or Singapore/Cambridge School Certificate Examination, including *Bahasa Melayu*
- Two GCE A-level passes, preferably with good grades in relevant subjects, excluding art and General Paper (For example, for the B.Sc. Education program, students must have at least two A-level passes from any of the four following subjects: biology, chemistry, mathematics, and physics. For the B.A. Education program, students must have at least two A-level passes from any of the following three subjects: geography, economics, and English. For the B.A. Primary Education program, O-level and A-level passes in relevant subjects would include English, mathematics, science, geography, and history subjects.)
- A school certificate pass (Grade 8) in English language at GCE O level

For Certificate programs, the admission requirements are:

- Four credit passes in O-level subjects, including *Bahasa Melayu*
- Preference is given to those who have obtained credit passes in English-language medium subjects, particularly English, mathematics, and science.

Applicants to the Masters in Educational Management program are required

- To have a degree (normally a second-class honors degree) from a recognized institution
- To have a minimum of five years working experience
- To demonstrate a reasonable level of English during an interview, which will enable them to complete the course successfully.

In addition to the general admissions requirements of the university, the Faculty of Education maintains a set of admissions criteria that must be met before students are accepted in the degree programs. Interviews and screening of applicants are conducted at the Faculty Committee level. The selection criteria include the applicant's academic and other relevant qualifications; English-language proficiency, determined through an English Proficiency Test; spread of O level subjects; additional courses attended; and personality characteristics.

The student intake is relatively small at present, due to the limited facilities of the university in its temporary campus. Since the majority of the students are under a scholarship arrangement with the Ministry of Education, the number of slots is determined by the MOE in consultation with the UBD.

Nature and Content of Preservice Teacher Preparation Curricula

Teachers are required to teach not only different content areas, but also at different levels of education, ranging from early childhood through early and middle to late adolescence. These varied levels of education, because of the differential nature of the learners, have different specific objectives, different content, and different psychological and social aims. Subject matter content in the teacher education programs is treated differently in terms of depth, methodology, and assessment requirements in order to meet the developmental needs of learners. The unique expectations placed on teachers in Brunei Darussalam require special programs of teacher education. The varied entry qualifications of students also call for different treatments to raise them to expected levels of performance.

In order to effectively prepare teachers to teach at various levels, different teacher education programs were designed and developed. They are as follows:

- *A. Group I Programs designed to fulfill basic educational needs:* B.A. Prim Ed; B.A. Pendidikan Rendah; Certificate in Early Childhood Education; Certificate in Education
- *B. Group II Programs designed to fulfill general and semi-specialized secondary educational needs:* B.Sc. Education; B.A. Education; B.A. Pendidikan
- *C. Group III Programs designed to fulfill highly specialized professional educational needs:* Postgraduate Certificate in Education; Sijil Pengurusan Pendidikan; Sijil Pengajaran Bahasa Melayu; Master in Educational Management

Overview of Education Programs

Each of the degree programs offered by the FOE is of four years' duration. The programs have three major components, which are the education courses; content courses taken in other faculties, such as history, geography, economics, TESL, mathematics, biology, chemistry, and physics, which relate to student's future teaching specialization; and the University Required Courses, namely Critical Thinking, English language, and Malay Islamic Monarchy (MIB). Critical Thinking (four units) in the degree and certificate programs focuses on the principles and techniques of argument analysis, argument structure, and use of arguments. The course aims to develop logical skills and to foster cognitive skills that are necessary for rational thought and research in university work. En-glish Language (eight units) aims to improve student's ability to study effectively through the medium of En-glish and to prepare students to use English accurately and fluently as future educators and communicators. Malay Islamic Monarchy (MIB) (four units) aims to inculcate among students the national philosophy of *Melayu Islam Beraja* as a national concept that integrates the language, culture, and Malay customs; teaching of Islamic laws and values; and the monarchy system of administration.

The educational studies in each of the three secondary teaching degree programs account for approximately one-third of the total program of 124 units. The balance (apart from the university-required courses) comprises coursework in other faculties, which is intended to provide students with both a liberal education and a knowledge of specialized subject matter, which they will be required to teach in the secondary schools. The education component is similar both in the Malay and the English secondary education programs.

The B.Sc. Education/B.A. Education/ B.A. Pendidikan *Programs*

The B.Sc. Education is a four-year degree program designed to prepare students for teaching science (math, biology, chemistry, physics) in secondary schools. Only school leavers are admitted into the B.Sc. Education programme. The B.A. Education and B.A. Pendidikan programs are of eight semesters' duration for preservice students and seven semesters' duration for upgrading students. These programs are designed to produce graduates with specialized knowledge of arts and social science subjects to be taught in the secondary school.

The B.Sc. Education course consists of 9.6 percent university-required courses, 58.1 percent subject studies, and 33.3 percent education courses. The B.A. Education program consists of 12.9 percent university-required courses, 53.2 percent subject studies, and 33.9 percent education courses. Within the Faculty of Education, methods courses comprise 28.6 percent of the total units; 19.0 percent is field experience of teaching practice and 52.4 percent is theory-oriented courses.

The B.A. Primary Education Program

The B.A. Primary Education program caters to both preservice and in-service students. Preservice students are school leavers gaining entry into the university directly after Form 6. They follow a four-year or eight-semester university primary education program. In-service or upgrader students are serving teachers gaining entry into the university after at least five years of teaching experience. In-service teachers would have a three-year Certificate in Education qualification on entry. These teachers are given course exemptions in the four-year B.A. Primary Education program, and receive their degrees after three years or six semesters of university work.

The new program structure of the B.A. Primary Education preservice program carries a load of 124 units spread out proportionately over four years. The Certficate in Education and B.A. Primary Education upgrader programs carry a load of 94 units spread out proportionately over three years of university work.

The B.A. Primary Education and Certificate in Education programs are in line with the bilingual policy implemented by the Ministry of Education in the school system. Since the bilingual nature of the primary education system required that about half of the subjects in upper primary be taught in Malay and the other half in English, students are trained in one of the two languages, depending on their competency in the language. In the implementation of bilingual education, subjects in the lower primary level are taught entirely in Malay, with English offered as a subject in the school curriculum. This is followed by a switch to English for major subjects (science, mathematics, geography) in the upper primary level. Other subjects in the school curriculum (Sejarah, art, physical education, civics) continue to be taught in Malay.

In the new B.A. Primary and Certificate in Education programs, there is an increase in total units of time allocated to subjects deemed important in the primary school curriculum. Students in the programs undertake courses depending on their chosen strand, that is, strand A, which focuses on teaching subjects in the lower primary level in Malay language, and strand B, which focuses on teaching subjects in the upper primary level in English.

There are three main elements in the programs. These include the university-required courses, teaching practice or field experience, and teaching skills. The university required courses are the same as other degree programs in the university. Teaching practice is a second element and is central to the programs, as it allows students to observe and understand school operations and demonstrate the application of theories of teaching and learning to actual classroom situations. The teaching skills element in the programs is made up of two major components. One is Pedagogical Studies (9 units), which examines teaching strategies, types of assessment, classroom organization, and the use of educational technology. The second is methodology courses (21 units), taken in the different curricular subjects, according to the strand chosen by the students.

Differences in the Nature and Content of Teacher Preparation Programs

Since UBD is the only teacher training institution in the country, there is no comparison to be made in terms of the nature and content of teacher education programs. Graduates of UBD are immediately employed by the Ministry of Education.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

The teacher education curricula at the UBD are not linked to the state curriculum standards. However, teacher educators take into account the objectives of both the state and the system of education when designing and developing teacher education programs at UBD.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

After graduating from UBD, students are immediately posted to schools. There is no formal induction, transition, or "on-the-job" training before graduates are employed.

Professional Development Opportunities

Both the Faculty of Education and the Ministry of Education recognize the need to support and assist in the professional development of teachers and that initial training is only the beginning, and should be supplemented with subsequent training to be given from time to time. Within the Faculty of Education, the Department of in-service Education & Training (INSET) has formulated the following goals:

- To help teachers upgrade their professional knowledge and skills
- To enable teachers to keep abreast of the latest developments in the field of educational research
- To provide a forum for teachers to exchange views and share experiences with regard to content and methodology in specific subject areas
- To assist teachers in developing interpersonal skills and effective interaction with students, colleagues, and others involved in the education of children
- To enhance teachers' individual and corporate professionalism

Conducting in-service courses is a major concern of staff in the Faculty of Education, but academic staff from other faculties contribute to the activities of INSET. The program of activities characteristically varies in objectives, strategies, duration, and modalities. Practically all of the in-service short-term courses deal with either content or methodology for particular curriculum subjects for primary and lower secondary teachers. A certificate is given to participants who successfully complete the in-service course.

4

Teacher Training and Professional Development in Canada

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Education in Canada is entirely under the jurisdiction of the provincial governments. As a consequence, there are as many educational systems as there are provinces. This is also true of teacher training. Seven Canadian provinces have agreed to contribute to the Comparative Study of Teacher Training and Professional Development in Asia-Pacific Economic Cooperation (APEC) Members: British Columbia, Alberta, Manitoba, Ontario, Québec, New Brunswick, and Nova Scotia. The following report is a summary of the information submitted by each of these provinces in answer to the APEC questionnaire. It does not provide information on teacher training in Saskatchewan, Prince Edward Island, and Newfoundland, nor in the Territories.

CONTEXT

Definitions

Table 4.1 below provides information for definitional purposes.

Educational System and Student Population

School Jurisdictions

Each province has its own education system, the organization of which varies somewhat from one province to another. All provinces have public and private schools, but the vast majority of students attend public schools. As a general rule, private schools must adhere to provincial curriculum and guidelines, and must hire certified teachers in order to be accredited and to receive a portion of the provincial funding. Home schooling is allowed in some provinces but must take place under the supervision of a school jurisdiction.

The different education systems also provide for vocational training, adult education, special needs students education, and, in some cases, distance education through correspondence courses.

In some provinces, schools have an official religious affiliation (Protestant or Roman Catholic) but the tendency is toward secular jurisdictions. All provinces offer schooling to their Francophone or Anglophone minorities: one-third of the students in New Brunswick receive education in French and 10 percent of Québec students are enrolled in English schools. In Ontario, the proportion of French students is about 5 percent.

In most provinces, the responsibility for education is shared between a ministry (or department) of education and school districts (or school boards). School boards are elected bodies responsible for implementing provincial policies and guidelines in the area of education. They function at the local level and are empowered to levy taxes to supplement provincial funding to meet local needs, preferences, and so forth. The functioning and responsibilities of each level of jurisdiction is usually described in each province's Education Act. As a general rule, formal advisory groups exist in each school district: boards of trustees, home-and-school-type associations, student councils, and so forth.

TABLE 4.1
Grade Levels, Age Ranges, and Type and Level of Education Required to Teach at Each Level

Definition	Grade Levels	Age Range of Students	Type and Level of Education Required to Teach at This Level
Pre-elementary schooling	In general, pre-elementary schooling is referred to as kindergarten, or early childhood services, and no grade levels are attached to this concept. In Manitoba, the period covering kindergarten to grade 4 is referred to as the "early years."	Depending on services offered, ages vary from 0 to 6 years. In general, kindergarten is offered to children 5 years of age. In Manitoba, the "early years" range from 5 to 10.	In most provinces, the requirements are the same for kindergarten and elementary school: a B.Ed. degree or the equivalent.
Elementary schooling	The situation varies from one province to the other. The passage from elementary to secondary school can be in grade 3 (B.C. and N.B.), grade 6 (Alta., Que., N.S.) or grade 8 (M., O.). In Manitoba, grades 5 to 8 are referred to as the "middle years."	Depending on grade levels, the age range varies from 6 to 8, 11, 12 or 13.	All provinces require a B.Ed. or the equivalent, requiring a minimum of 4 years of postsecondary studies. Some provinces have a specific teacher certificate for teaching at the elementary level; others have only one certificate for elementary or secondary school teaching.
Secondary schooling	In many provinces, secondary school covers grades 7 to 12. In B.C., it includes grades 4 to 12; in Manitoba and Ontario, grades 9 to 12; in Québec, grades 7 to 11. In Manitoba, it is referred to as the "senior years."	The most frequent age range is 12–13 to 17–18. Depending on the grade levels included in secondary school, the range can vary somewhat. In B.C., for example, it extends from age 9 (grade 4) to 17 (grade 12).	All provinces require a B.Ed. or the equivalent, requiring a minimum of four years postsecondary studies. Some provinces have a specific teacher certificate for teaching at the secondary level.
Postsecondary education	Any training beyond high school is considered postsecondary. In all provinces except Québec, students can enroll in university programs after high school and bachelor's degree programs are four-year programs. In Québec, there is an intermediate two years in college (CEGEP) before entering three-year bachelor's programs. Some provinces also have colleges for vocational or technical training. All provinces offer master's and doctorate degrees.	Depending on the length of secondary schooling, 17 and over.	Master's and doctoral degrees. No specific training in education or teaching.
Preservice teacher preparation	In most provinces, teacher training programs are B.Ed. programs in which students can enroll after high school (three- or five-year B.Ed. programs) or after a first degree.		Requirements as set by the universities.

Funding is accomplished through grants from the ministry and, in some cases and to a minor extent, through property taxes raised at the local level.

Education systems in Canada are more or less decentralized, depending on the provinces. In British Columbia, for example, school-level policy is primarily determined by the school district rather than by the ministry. In most provinces, districts are geographically diverse and face different types of educational challenges, and such differences are the reason for the decentralization of many policy and most staffing decisions.

In all provinces, the ministry develops and distributes core curriculum at all levels of the system and sets graduation requirements. In some provinces, graduation exams are administered by the Ministry of Education on a provincial basis. In British Columbia, the Provincial Learning Assessment Program evaluates the success of the curriculum and tests students at specific grade levels to ensure that the core subjects are being mastered.

Accountability of school districts or school boards is usually achieved through measures such as the submission of an annual report to the ministry.

Number of Schools and Student Enrollment

British Columbia has 75 school districts, and enrollment ranges from a low of 389 to a high of 54,036 in Vancouver. The total number of elementary and secondary public schools is 1,645. Total enrollment of students is 554,590: 342,129 at the elementary level and 212,461 at the secondary level. Special education counts 53,638 students and schooling for native French-speakers is offered to 2,314 students. In addition to the latter, 53,638 students are enrolled in French immersion programs. Average class size is 23.1 at the elementary level and 24.6 at the secondary level. Independent schools receiving government support have a total enrollment of 43,339: 29,709 at the elementary level and 13,630 at the secondary level.

Alberta has a total of 1,592 public schools and 175 private schools for elementary, junior and senior high school, and special education. A certain number of other schools can be added to that number, for a total of 2,040. Total enrollment is 493,590 students.

Manitoba has 703 public schools and 95 private schools for a total enrollment of 208,913 students, 196,619 of whom are enrolled in public schools, 11,640 in private schools, and 654 in home schooling. More than half (55 percent) of the student population is found in urban Winnipeg, 30 percent in rural regions, and 10 percent in the north.

Ontario's publicly funded school system consists of 5,136 schools: 2,948 public elementary and 200 public secondary schools, and 1,396 Roman Catholic elementary and 192 Roman Catholic secondary schools. Total enrollment adds up to just under 2 million students, with over 120,000 full-time teachers. Of this, about 5 percent are French-language schools. The Greater Toronto area accounts for over 40 percent of the total student population in Ontario. The western and eastern regions of the province account for another 40 percent, and the three northern regions comprise the remaining 20 percent, although they are the largest geographic part of the province.

Québec's publicly funded school system consists of 158 school boards: 137 Roman Catholic, 18 Protestant, and 3 providing schooling to native Indians. There is a total of 1,663 public schools and 190 private schools (12 of which are for special-needs students). The total enrollment in the youth sector is approximately 1,150,000 full- and part-time students: 427,260 at the kindergarten and elementary level and 412,788 at the secondary level. Moreover, 228,000 adults are enrolled in courses leading to a diploma, and 210,000 in community education courses. Finally, 49,358 young and adult students are enrolled in vocational training.

New Brunswick has a total of 407 public schools organized in 18 school districts along geographic and linguistic lines. Almost all of New Brunswick's 140,000 students (98 percent) are educated in the public school system.

In Nova Scotia, the management of the school system is the responsibility of 22 district school boards. There are 493 schools, for a total enrollment of 165,421 students. The average class size is 23.8 and the student-teacher ratio is 15:9. Moreover, Nova Scotia Community College provides a postsecondary, nondegree-granting system of education throughout the province that focuses on occupational-oriented technical and vocational programs, courses, and services. It provides approximately 130 programs, or courses, to the equivalent of approximately 7,000 full-time students. An apprenticeship program also trains apprentices in designated trades to meet the needs of industry. Employers provide practical experience and on-the-job training for apprentices. The program involves 31 designated trades, in which approximately 4,200 apprentices are enrolled.

Cultural Diversity

Cultural diversity is a characteristic of the Canadian population as a whole, due to its history, geography, and the growing importance of immigration over the past two decades. All provinces are characterized by geographic diversity of population concentrations—heavily populated urban areas and sparsely populated distant rural regions. All provinces have a more or less important population of native Indians. The presence of linguistic minorities (Anglophone in Québec and Francophone in the other provinces) must also be noted. Linguistic duality is most important in New Brunswick, Québec, and Ontario, but other provinces, such as Nova Scotia, also have an important French minority.

Immigration also accounts for a great racial and ethnic diversity in provinces like British Columbia, Alberta, Ontario, and Québec, especially in the great urban areas. Provinces like New Brunswick or Nova Scotia, on the other hand, have a relatively small immigrant population and do not face the same kinds of issues. These provinces are instead more preoccupied by the declining proportion of young people in their population.

Immigration over the past two decades has come mainly from non-English-speaking countries, particularly the Pacific Rim, the Indian subcontinent, the Middle East, and, to a lesser extent, Africa and Central America. This has increased the need for qualified teachers with expertise in the teaching of English or French as a second language. It also emphasizes the need for intercultural education and for the development of special skills for teaching classes with a high concentration of students of different races and ethnic origins. In Montréal, for example, one out of every three students in the Commission des écoles catholiques de Montréal is from a different cultural community.

Another factor that needs to be emphasized is the trend toward integration of handicapped and disabled students in regular classroom settings with their peers. Teachers are responsible for instructing exceptional students in their classes and, as a result, have become involved in using a variety of teaching and organizational strategies to meet this challenge.

Graduation Rate

Data on graduation or school retention rate are not available in all provinces, and, where available, figures are not necessarily comparable, since the streaming of students is not the same in all provinces once they enter secondary school. Schooling is mandatory from age 6 until age 16 in all provinces, and, therefore, a vast majority of students complete their grades but do not necessarily obtain a secondary school diploma. Some provinces deliver different levels of secondary school diplomas, not all of which can lead directly to university.

Alberta does not keep centralized records of completion rates at the pre-elementary, elementary, and secondary levels. A data base is currently under development.

In British Columbia, graduation rate is 69.1 percent for the public schools (the eligible grade 12 graduation rate is 84.4 percent), while the graduation rate is 93 percent for independent schools.

In New Brunswick, a number of policies and programs have been instituted in recent years to address the issue of student retention. It has climbed steadily to a high of 85.6 percent in 1991–1992.

In Québec, approximately 65.4 percent of young people and 12 percent of adult students receive their Secondary School Diploma; 61 percent of graduates in the youth sector go on to the *Collège d'enseignement général et professionnel* (CEGEP) level. The graduation rate for the province and for most school boards has been gradually improving over the years. In 1992, the Minister of Education's Plan of Action on Educational Success set as its main goal an increase in the graduation rate of those under 20 years of age; the goal is to rise from 65 percent to 80 percent within five years.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

The number of teachers employed varies greatly from one province to another. Ontario and Québec have the largest teaching forces, with approximately 120,000 and 60,000 teachers, respectively. The number of teachers in the other provinces is approximately the following: 35,000 in British Columbia; 30,000 in Alberta; 12,000 in Manitoba, and 8,600 in New Brunswick (the number of teachers in Nova Scotia is not available).

Between 60 percent and 65 percent of teachers are women; their presence is even more notable at the elementary level. Although women represent almost two-thirds of the educators, male educators continue to dominate positions of responsibility in most provinces.

The average age of teachers varies from 40 to 42, and women emerge statistically as a few years younger than the average; men a few years older.

The average number of years of experience varies between 10 and 16, with men showing a somewhat higher average (up to 19 years in Ontario).

The majority of teachers in Canada have a university first-degree education; a B.Ed. (Bachelor of Education), or equivalent, is a minimum requirement for teacher certification in every province. Beyond the basic teaching certificate, teachers can raise their level of qualification by taking specialist courses or through advanced academic standing. Many teachers have further qualifications, but data are not available on the number or percentage of teachers having a master's or doctoral degree.

Teacher Certification

In all provinces, a professional teaching certificate is issued to graduates of university preservice education programs and, with certain conditions, to both experienced and inexperienced teachers from other provinces. The certificate is generally issued by the province's ministry, or Department of Education, except in British Columbia, where this responsibility has been transferred to the British Columbia College of Teachers.

The professional teaching certificate may be temporary or permanent. In some provinces, a permanent certificate is issued to graduates of an approved university education program, while in others (Manitoba and Québec), an interim certificate is first issued to graduates from universities and the permanent certificate is issued after one or two years of successful teaching, on the recommendation of the school or school board authority, or of another provincial official.

In all provinces, an interim certificate or temporary permit is issued to persons coming from outside the province or the country, and one or two years of successful teaching are required before they can obtain a permanent certificate. Bilateral agreements exist between many provinces regarding certification of teachers.

In some provinces, like Alberta and Manitoba, there is only one teaching certificate and it allows holders to teach all subject disciplines at all grade levels—from elementary to the end of secondary school (grade

12). In other provinces, like Nova Scotia, Québec, and Ontario, a teacher certificate entitles the holder to teach only specific levels, grades, or subjects.

In a certain number of provinces, teachers are classified according to categories. The following classifications apply, for example, in Manitoba: administrators, clinicians and counselors, consultants and coordinators, and classroom teachers. The practice differs in other provinces, like Québec, where no such categories exist and where the administrators are not classified as teachers.

Teacher Recruitment and Contracts of Employment

As a general rule, teachers are hired directly by school boards or by local authorities. They are not considered public servants or provincial government employees, but are part of the public sector that receives much of its funding from government.

Recruitment, hiring, layoff, and type of employment tend to vary more or less, depending on the degree of decentralization of the education system in the province. Even though hiring is a local responsibility, working conditions can be set by collective agreements at the provincial level, as is the case in provinces like Québec and New Brunswick. In other provinces, like Alberta and British Columbia, districts are relatively self-determining and have their own policies on teacher hiring and recruitment. In these provinces, collective bargaining is accomplished at the local level. Generally, the type of employment ranges from one-year contracts to permanent positions. Districts also have lists of teachers on call to substitute as necessary.

There is no centralized recruitment agency in any province. Each teacher is free to seek and accept employment in any school jurisdiction or private school anywhere in the province. Typically, school jurisdictions in and around urban areas receive more applications in a year than there are vacancies to be filled. Recruitment is more difficult in remote and isolated school jurisdictions.

Once hired, the successful applicant enters into a temporary contract. Within one or two years, the employing board must decide whether or not to offer the teacher an ongoing contract of employment.

Salary

In all provinces, teachers are classified, for purposes of remuneration, according to their level of schooling and their number of years of experience in education in the province. As a general rule, the same grid is applied to all teachers in the province, but the number of categories differs from one province to another. In Alberta, for example, teachers' salaries are located across a 6-by-12 grid: one to 6 years of education beyond high school and zero to 11 years of teaching experience. In Manitoba, teacher classification for salary purposes is based on seven classes of professional and academic qualifications (class 1 corresponds to senior matriculation plus one year of professional study, whereas class 7 corresponds to senior matriculation plus seven years of study in a degree or postbaccalaureate program, including at least one year of professional study).

In some provinces, like Québec or New Brunswick, the grid is applied to all teachers, at all levels and in all districts, while in other provinces, like British Columbia, these descriptions are used only as guidelines by local authorities and the classification may vary from one district to another. The level of pay is determined by a collective bargaining process; it can therefore vary from one district to another in the provinces, where collective bargaining is done only at the local level. Working conditions and salaries are generally consistent and more or less uniform; the teachers' unions set the overall working conditions and salary levels for all teachers or give sufficient information and support to local unions when collective bargaining occurs.

In most provinces, standardized certification programs and equity policies have leveled the salary scales between elementary and secondary school teachers.

Special allowances may exist for additional responsibilities or for working in conditions of isolation. In provinces where salaries are determined at the local level, like Manitoba, educators in the north or in remote areas tend to have better working conditions and salaries to compensate for their additional responsibilities and for the hardships associated with the geographic location.

Average salaries (please note: the exchange rate in August 1994 was approximately US$1.00 = C$1.35) range from a low of C$20,000–C$25,000 for beginning teachers with a minimum of teacher education preparation and experience to a high of C$55,000–C$69,999 for experienced teachers with higher qualifications.

The following information was submitted by the participating provinces:

- In **Alberta,** salaries range from C$20,284 (no experience and one year of teacher preparation) to C$58,410 (11 years of experience and 6 years of teacher preparation). The average salary of teachers who have completed a B.Ed. degree is C$30,836 in their first year of teaching.
- In **British Columbia,** the average teacher salary is C$51,855. Included in this figure are principals' and vice-principals' salaries. For male teachers, the average salary is C$51,994, and for female teachers, C$47,607.
- In **Manitoba,** the average salary is C$46,911.

- In **New Brunswick,** teachers' salaries range from C$27,573 to C$50,849. Teachers holding positions of responsibility (principals, vice-principals, department heads, subject coordinators) are entitled to extra allowances based on the number of persons under their supervision.
- In **Ontario,** the average salary of male elementary school teachers is slightly under C$60,000 and just under C$50,000 for female teachers. Male secondary school teachers earn approximately the same as their elementary school counterparts, whereas female secondary school teachers earn around C$55,000 on average.
- In **Québec,** salaries range from a low of C$25,729 (14 years of education and one year of experience) to a high of C$59,979 (20 years of education and 15 years of experience or more).

Employment Benefits

Employment benefits form part of the collective agreements negotiated at the provincial or local levels. Even in cases where collective agreements are negotiated at the local level, teachers have access to similar benefit packages that include pension plan, life insurance, and health benefits.

Characteristics of Teaching Employment

Collective Bargaining

In all provinces, teachers are members of local teachers' unions, which are usually grouped under a provincial association. In some cases, the provincial teachers' association is seen as a union and as a teachers' professional organization, as is the case for the Alberta Teachers' Association (ATA). It is interesting to note that in Alberta, under the School Act, membership in the ATA is mandatory; it is also available to students in the provincial faculties of education and to persons contributing significantly to education. In Québec, there are three teachers' associations: one for French-speaking teachers and two for English-speaking teachers (one Protestant and one Catholic).

Contracts may by negotiated individually, by school districts, with local teacher unions (as is the case in Alberta, British Columbia, Manitoba, and Ontario), or by the provincial government and employers' associations at the provincial level (as is the case in Québec—where little is left for local bargaining—or in New Brunswick—where there is no local bargaining). When negotiation is carried out at the local level, the teachers' provincial association may provide locals with salary comparisons, guidelines, information, and training. As a consequence, salaries and benefits tend to be similar across the province, but not identical.

Beyond salaries and benefits, collective bargaining processes may also deal with issues such as class size, preparation time, nonteaching duties, hours of instruction, clerical assistance, special education support and integration, professional development, and so forth.

Patterns of Supply and Demand for Teaching Positions

In most provinces, teacher mobility and turnover have been decreasing over the last few years and, as a result, there has been a steady increase in the average age of teachers. A significant proportion of the teacher population will be eligible for retirement over the next five to ten years. Demand is expected to begin rising again in the late 1990s.

All provinces indicate a higher turnover rate in more remote areas, with the result that some schools experience difficulty in hiring and retaining teachers. British Columbia has developed a strategy to deal with shortages of qualified teachers in rural and remote areas by establishing local teacher education programs designed for students resident in those areas who will later take up teaching positions there. Through partnerships involving the regional community college, one of the universities, and several school districts, it is now possible for students to complete a teacher education program without relocating to a southern urban area.

Even if no shortages are expected in the near future, some schools experience difficulties in hiring qualified teachers for specific fields. The situation varies somewhat from one province to another but the sciences, mathematics, and French or English as a second language are the fields in which the most critical shortages occur. Many provinces seem to have some difficulty recruiting qualified teachers for biology, music, art, physical education, and special education, while Québec experiences surpluses in many of these fields, especially in physical education and art.

Surpluses are also identified in other provinces: In Alberta, there is a significant surplus of elementary school generalist teachers and secondary school language arts and social studies teachers. In Québec, the number of elementary school teachers is also high.

The following section supplies more specific information submitted by different provinces on the issue of supply and demand.

In **British Columbia,** approximately 2,500 new teachers are hired annually, which accounts for 7 percent of the total number of educators in the province. Of these, approximately 550 to 650 are new graduates of teacher education programs offered in British Columbia. Another 500 to 700 are individuals from other provinces in Canada. Issues of supply and demand have been addressed by the development of a computer-based, regionalized, supply-and-demand projection model. Based on the model framework, future teacher requirements are being investigated through a study involving

1. a comprehensive analysis of teacher and student characteristics and behavior over the period 1986–1991;
2. an examination of elementary and secondary teacher requirements to the year 2011 for the province and for four specialized regions;
3. a review of expected changes in the teacher workforce;
4. an examination of two "alternate" scenarios, one assuming an increase in class size, the other reviewing the effects of a hypothetical early retirement program.

In **Manitoba,** the Teacher Supply and Demand Task Force was established in January 1993 to investigate the magnitude of a possible teacher shortage, to examine possible strategies to deal with it, and to recommend a plan of action to the minister. The conclusion of the investigation is that there will be a continuing strong demand for teachers within the province over the next decade. In 1989–1990, 1,063 teacher acquisitions were required, and of these 47 percent were beginning teachers newly certified in the previous year. It is expected that yearly teacher acquisitions will be slightly in excess of 1,000 until 1999–2000.

New Brunswick and **Nova Scotia** have not experienced any shortage for some time and no shortage is projected for the next 20 years in New Brunswick. Hence, there has been little need to establish special strategies to attract teachers to certain fields, nor has there been a need to review certification standards to accommodate shortages. The situation in Nova Scotia is similar: The predicted need for teachers in future years is small and can be filled by current teaching training institutions and by the existing pool of substitute teachers. Small surpluses in some areas could cushion the impact of shortages in others.

In **Ontario,** the demand was on the increase between 1980 and 1990, when it peaked at approximately 12,000, or 10 percent. Faculties of education graduated about 5,000 teachers that year. Approximately 1,500 came from out of the province, about 4,500 were re-entering the profession, and the remainder were part-time and supply teachers accepting full-time jobs, or teachers from other sources.

Faculties base their course offerings on general trends and on expressed areas of need coming from the school systems and from professional associations. The number of new teacher graduates has varied, from under 3,000 to just above 5,000 over the past decade, depending on system demands.

In **Québec,** it is expected that, over the next 15 years, about half of the teaching force will have to be replaced: Between 1992 and 2004, 45,000 full-time teachers will be needed to teach kindergarten and at the elementary and secondary levels (excluding vocational education and adult education). But it is also known that recruitment will not exceed 3,000 teachers a year, even when the most numerous cohorts begin to leave.

However, there is an existing pool of part-time and substitute teachers of over 17,000 persons, which is still growing, since universities are graduating approximately 4,000 teachers annually—significantly more than the actual need. As a result, no shortages are expected. The need for better planning is felt by all partners: teachers' unions, the ministry, and faculties of education, as well as by school or school board administrators. Questions related to teacher supply and demand—Should measures be taken to encourage students to go into teaching, and in what fields? In which regions? What of the thousands of graduates who have not yet found full-time jobs? Should faculties of education limit enrollment in teacher training programs?—will be addressed by the ministry and its partners over the next year. Faculties of education have already agreed to limit enrollment in order to adjust to system demands.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

All teacher preparation programs in Canada are university-based degree programs offered through faculties of education or, in specific cases, through other institutions—like university colleges or community colleges—in partnership with universities.

Universities receive block grants from the provincial governments to offer their academic programs. They also have access to additional funds through sources such as endowments, student tuition, research funding, or donations.

As a general rule, faculties of education are subject to the governance of the university, and the financing of education programs is similar to that of programs offered by other faculties within the university setting. In each province, a Universities Act sets out the structure under which universities operate.

In **British Columbia,** three universities and three university colleges offer teacher preparation programs. Presently, the university colleges offer programs leading to a B.Ed. for elementary teaching only. In addition, rural teacher education consortia offer programs designed for students resident in rural and remote areas who will later take up teaching positions there. These programs were implemented in 1988 and are offered through partnerships involving the regional community college, one of the universities, and several local school districts.

In 1993–1994, 1,746 students were enrolled in elementary or secondary teaching preparation programs through one of the universities (either in an on-campus program or through one of the rural programs offered in partnership with a university college or with a regional community college).

In **Alberta,** three universities offer teacher preparation programs, but they do not all offer the same specializations. Preparation for early childhood education, for example, is offered only at the University of Calgary, while only the University of Alberta offers programs for teacher preparation in industrial arts or vocational education. The University of Lethbridge offers only a five-year teacher preparation program in which students earn two degrees concurrently, one of which is a B.Ed.

In **Manitoba,** there are six teacher preparation institutions: three universities, a university college, a community college, and the Winnipeg Education Center. Different programs are offered at the undergraduate and graduate levels: the four- or five-year B.Ed., the after-degree B.Ed., the certified teachers' B.Ed., the postbaccalaureate certificate in education, the master of education, and the Ph.D. Faculty of education enrollment is approximately 5,000, 4,400 of which is at the undergraduate level; 800 students are enrolled in graduate B.Ed. programs, and 100 in master's or Ph.D. programs. Agreements exist among the universities and the colleges to allow students to earn a B.Ed. degree on the basis of work completed in more than one institution, but all programs require at least one year at the university.

In **Ontario,** ten universities offer teacher training programs. Of these, the University of Ottawa delivers programs in both French and English, and Laurentian University delivers programs in French only. All teacher training institutions must comply with government regulations regarding minimum entry requirements and must seek ministry approval for new course offerings that lead to teacher certification.

Graduate studies in education are offered in some of the faculties, for example, at York University, the University of Western Ontario, and the University of Ottawa, as well as the Ontario Institute for Studies in Education, whose principal role is to further research in the field of education. Master's degrees are a requirement for entry to programs leading to qualification as school principal and school board supervisory officer.

While only faculties of education may provide the program leading to qualification for school principal, a new program to qualify supervisory officers, established in 1990, is being offered by various other organizations approved by the Ministry.

Twelve universities offer teacher preparation programs in **Québec.** Three of these deliver programs in English. The number and type of programs offered vary between different institutions, but all universities offer programs preparing for teaching at the pre-elementary and elementary level, and most of them also offer programs for secondary school teaching. More specialized areas, such as physical education, art, special education, adult education, or vocational education, are not offered by all universities. Master's degrees and the Ph.D. are also offered in most universities, but they are not required for certification.

Four institutions provide teacher training in **New Brunswick,** but the University of Moncton is the sole institution providing teacher training for Francophone teachers. It has an enrollment of 750 students. The University of New Brunswick is the primary training institution for teachers in the Anglophone sector. It has an enrollment of approximately 800 students and offers programs at all levels and in all subject areas. St. Thomas University and Mount Allison University offer limited enrollment B.Ed. programs to students who already hold a Bachelor's degree.

In **Nova Scotia,** preservice teacher education is offered at eight universities or university colleges. The programs may be concurrent or sequential, and they vary in length (one, two, four, and five years). Moreover, all institutions do not offer the same options. Six of the universities offer master's programs, but the only doctoral program is offered at Dalhousie University.

In addition, a specific program has been established for preparing and qualifying community college teachers and to service the personnel of trade schools and institutes of technology, and intermediate industrial educators.

Policy Guidance and Accreditation

Universities are autonomous institutions that operate under provisions set by legislation giving them responsibility for setting academic and admission policies and for keeping the programs they offer—including teacher education programs—up-to-date.

In all provinces except British Columbia, the Minister of Education has retained the responsibility of delivering teacher certificates. As a general rule, some standards are set at the ministry level to guide the universities in the preparation of their preservice teacher education programs. In some cases, specific procedures for teacher education program accreditation are set.

In some provinces, the ministry or department of education plays an important role in the setting of standards for teacher education programs leading to certification. This is the case in Ontario and Québec.

In **Ontario,** the Ministry of Education and Training has the principal responsibility for policies governing teacher education and for programs leading to various levels of accreditation for teachers and educational administrators. The Teacher Education Policy Unit of the ministry is responsible for the review, development, and coordination of programs and policies on teacher education. The unit works closely with school board personnel and faculties of education. It interprets policy and regulation changes pertaining to teacher education. It also maintains close liaison with the Curriculum Policy Team to ensure consistency in curriculum matters affecting teacher education. The Registrar Services Unit maintains and updates all teacher certification records and also is responsible for the evaluation of candidates with out-of-province teacher certification.

The situation in **Québec** is slightly different. The minister awards a teaching permit to individuals who have successfully completed an approved teacher training program in recognized institutions. The ministry's *Regulation respecting teaching permits and teaching diplomas* describes the minimum requirements the approved programs must meet. The Minister of Education sets orientations and standards for teacher training. University programs must comply with these requirements in order to be accredited for certification purposes. In collaboration with its partners, the ministry is currently in the process of reviewing the broad orientations and guiding principles of initial teacher training and of determining the competencies future teachers are expected to have at the end of their initial training. In undertaking the review, the ministry is also reaffirming the professional nature of teaching and the urgent need to raise the requirements for admission into teacher training programs, and for entry into the profession.

Until recently, the Ministry of Education had the responsibility of approving all programs and major changes to programs leading to teacher certification. The minister has retained this responsibility but has created an advisory committee, the *Comité d'agrément des programmes de formation à l'enseignement,* which is mandated to examine university programs and make recommendations to the minister regarding their accreditation for certification purposes. This committee was created in September 1992, and is composed of representatives of universities, schools and school boards, teachers' unions and professional associations, and the ministry.

An advisory committee, the *Comité d'orientation de la formation du personnel enseignant,* also has been recently created to propose orientations and make recommendations with respect to matters such as priorities in the area of teacher training, the requirements and procedures for teacher certification, orientations of teacher training, and professional development. The main goal of this committee is to promote participation and cooperation among the partners in defining the key issues in the area of teacher training, to contribute to improving quality of teacher training, and to ensure cohesion in the actions of the various partners involved in teacher training. The committee is made up of 15 members representing teaching professionals, employers, universities, the ministry, and those served by the school system (parents, adults, and business and industry).

In **British Columbia,** teacher licensing has been delegated to the British Columbia College of Teachers. According to the Teaching Profession Act, the council of the British Columbia College of Teachers may "approve for certification purposes the program of any established faculty of teacher education or school of teacher education." It may "cooperate with the teacher training institutions in the design and evaluation of teacher training programs leading to certification by the College." It may also make by-laws respecting the training and qualification of teachers, the issuance of certificates of qualification, the classification of certificates into one or more types, and the standards of fitness for the admission of persons as members of the college.

The college has adopted by-laws that authorize policy on criteria that all teacher education programs—existing and proposed—must eventually meet in order to be approved for certification purposes. Programs must meet the following criteria:

- *Context:* Appropriate institutional setting in terms of depth and breadth of personnel, research activity, and commitment to teacher education
- *Selection:* Selection and admission policies that recognize the importance of academic standing, interest in working with young people, and suitability for entrance into the profession of teaching
- *Content:* Base of academic knowledge of sufficient breadth and depth to prepare students for an appropriate teaching assignment in the school system:
    1. A minimum of 36 semester hours of professional education and pedagogical coursework, including a minimum of 12 weeks in supervised student teaching, the major part of which must normally be undertaken in public schools
    2. Recognition of the advantages of an extended practicum in one school
    3. Base of pedagogical knowledge informed by current research
    4. Base of pedagogical skills informed by principles of effective practice and current research
    5. Content that recognizes the diverse nature of

   society and addresses philosophical, ethical, and societal concerns, with specific attention to English as a second language, "First Nations" (Native Indian Peoples of Canada) issues, gender equity, multiculturalism, and students with special needs
   6. Base knowledge about the administrative, legal, and political framework within which teachers work
   7. Content that provides for inquiry and dialogue regarding ethics, standards, and practices of teaching as a profession
- *Integration of Theory and Practice:*
   1. Integrated theory and practice in all major areas of the program—such as practicum, educational studies, and pedagogical knowledge and skills—to encourage the development of reflective practice
   2. Recognition that the integration of theory and practice is enhanced by valuing good teaching and appropriate modeling of teaching methodologies, by ensuring that those who teach and supervise practica have recent experience and significant involvement in school classrooms, and by encouraging the development of education theories and research grounded in professional practice
- *Program Review:* Established process for continuing review of teacher education programs in order to initiate changes or to respond appropriately to changes arising from curricular, research, societal, and governmental policy directions

In **New Brunswick,** responsibility and authority for the training, licensing, and certification of teachers for the public school system rests with the Minister of Education. In 1972, the responsibility for preservice training was delegated to the universities. The Department of Education is responsible for the actual issuing of licenses and certificates, while the Minister's Advisory Committee on Teacher Licensing and Certification reviews policies, programs, and procedures, and periodically recommends changes.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

Goals of the teacher preparation programs are not always explicitly set on a provincial basis. As a general rule, teacher preparation programs are expected to develop the students' entry-level knowledge and skills, and the attitudes they will need to fulfill the responsibilities common to all schoolteachers in the context of a rapidly evolving society.

During the program, the prospective teacher should acquire a broad, general education, in addition to specific knowledge and skills in subject fields appropriate to the public school curriculum and to the art of teaching. Programs should address the systematic development of skills and instructional techniques. They should be based on sound educational pedagogy and reflect the interrelationship of subject matter and the way in which students acquire knowledge. They should also develop in students the skills and attitudes related to the professional dimensions of teaching: a critical mind, a sense of ethics, and a capacity for renewal.

Some provinces' guidelines respecting teacher education are explicit, as is the case in Québec, where a series of documents is actually being published (after a thorough consultation of its partners) by the ministry to define the orientations and principles teacher training programs must comply with, as well as the competencies expected of new teachers at the end of their studies. The goals set for teacher preparation programs in that province can be explained as follows:

- Teacher training should be considered professional training, directed toward the mastery of teaching practices appropriate to the subjects taught.
- A teacher's competence essentially resides in his or her ability to stimulate and guide each student entrusted to him or her through the learning process. Teaching is a complex activity requiring a set of special competencies that can be acquired only through solid training: knowledge of human development and learning processes and conditions; knowledge and skills related to the subjects taught; skills related to the act of teaching, to the cultural and social dimensions of education, and to professional ethics.
- The autonomy and responsibility that characterize teachers' work require that their training allow them to acquire a broad, general education, to develop a critical mind, and to contribute to the advancement of research related to the practice of teaching. Teachers also must be prepared to continue their training throughout their careers.
- Teacher education cannot truly be considered professional if it does not include a practical dimension, that is, systematic, planned, and critical training that will foster the development of future teachers' ability to integrate and apply, in real situations, the principles that form the basis of their daily practice. In consequence, universities should ensure that sufficient time be allowed for practical training; that objectives, supervision methods, and content of the

practicum be specified; and that students be rigorously monitored and systematically evaluated.
- To favor the development of teachers as professionals, it is indispensable that the various aspects of teacher training be organically linked and complementary. Practical training must be coordinated with training in educational psychology, and the latter with subject-matter training.

In each province, faculties of education develop their own statement of principles or ideals to guide their programs and their faculty members. Those principles are in close relationship with the main goals of teacher training defined at the provincial level, but may differ from one university to another. The principles outlined by the Faculty of Education of the University of Lethbridge, Alberta, are given here as an example. The faculty:

- Is committed to the concept of liberal education and the development of learners who engage in a lifelong pursuit of knowledge
- Promotes the concept of a teaching profession committed to understanding children and youth, working with them, and relating positively with them
- Is committed to preparing learners and teachers for the present world and for a better world in the future
- Promotes the development of attributes and skills necessary for effective communication
- Promotes in students an understanding of how knowledge is generated, evaluated, and revised, and an ability to reflect critically on the nature of knowledge, its transmission, and its interpretation
- Facilitates the integration of knowledge from general education, disciplinary education, professional education, and field experiences
- Promotes in students the development of intellectual and effective strategies for making pedagogical decisions
- Promotes an understanding of the personal nature of teaching and recognizes that the development of professional knowledge is a personal and a professional responsibility
- Promotes the integration of theory and practice in university courses and in schools and through experience, study, and reflection
- Seeks to support and to foster in students a spirit of inquiry, intellectual advancement, humane values, environmental conscience, aesthetic sensitivity, a sense of physical and mental well-being, the ability to establish interpersonal relationships and sensitivity to others' interests and feelings, and encouragement to apply these qualities in fulfilling their responsibility in a global society
- Fosters a close collegial and reciprocal relationship with other members of the teaching profession
- Supports faculty members who exemplify the above principles and ideals by developing and maintaining expertise in their disciplines and fields of study and in the pedagogy of teaching and teacher education, in their teaching, in their research and scholarly pursuits, and in their interpersonal interactions

Academic Preparation Prior to Preservice Teacher Education

There are different entry routes to teacher training depending on the province, the university, and the program. Students can be admitted straight out of secondary school (or CEGEP in Québec, which is equivalent to grade 13), after completing courses in other faculties; after a first degree (B.A., B.Sc.), or after completing studies in other faculties or universities. In addition, special provision is often made for persons who may not have taken traditional routes, such as mature, nonmatriculated students and persons from selected trades who have journeymen status. Native Indian students also may be given special attention.

Admission requirements are usually set by each faculty of education. Criteria differ depending on whether applicants wish to enroll in a four- or five-year B.Ed. program after secondary school, or in a one- or two-year after-degree teacher diploma, or B.Ed. Requirements also may differ between elementary school and secondary school teacher preparation programs.

There are no standardized examinations or criteria for screening applicants to faculties of education but, in more than one province, faculties of education have intake quotas for specific areas of concentration and, except in the area of mathematics and sciences, applicants outnumber available quota slots.

As a general rule, eligible applicants are ranked according to their university or college grade points or high school marks. Demonstrated competence in oral and written English (or French) is often an additional criterion.

Some universities have other requirements, such as confidential statements from referees qualified to attest to the applicant's suitability for teaching and/or an admission interview for the purpose of judging the suitability of the candidate for the teaching profession.

Admission committees often will give consideration to such factors as maturity, experience, emotional and physical characteristics relevant to the demands of the program, writing and speaking abilities, expressed motivation, and demonstrated interest in the teaching profession.

Nature and Content of Preservice Teacher Education Curricula

Preservice teacher preparation programs are university-level programs leading to B.Ed. degrees (first-degree three-, four-, or five- year B.Ed.; after-degree one- or two-year B.Ed. or Diploma). Their content varies accordingly. It may also differ when specific programs are offered to prepare for elementary or secondary school teaching. Differences also exist between teacher preparation for general studies and for vocational or technical teaching. Moreover, each university develops its own programs within the more or less explicit guideline set by provincial authorities.

The following examples provide an overview of the general content of, and main differences between, programs in different universities.

British Columbia: Elementary School Teaching Preparation

The elementary school teacher education programs allow candidates to focus their preparation on either primary or intermediate school teaching. The following is a description of the two-year program in elementary school education offered at the University of British Columbia, and will serve as an example of the teacher preparation curriculum.

- *Year I—Term I:* Prospective teachers are introduced to the theoretical bases of modern educational practice (see Table 4.2). Studies include analysis of the nature and objectives of education and of the developmental characteristics of learners. Attention is given to candidates' own interpersonal and communication skills and to strategies and methods of teaching. Structured classroom observations and teaching experiences (such as tutoring, peer teaching, and microteaching) are provided.
- *Year I—Term II:* Table 4.3 below lists courses for this term, which also includes an intensive, two-week school placement in which candidates consolidate their understanding of the first-term principles and approaches. This classroom experience provides a basis for further studies of ways of organizing knowledge for instruction and of methods and strategies for teaching. Candidates will prepare to teach all subjects at specific grade levels.
- *Year II—Term I:* Candidates spend this term in selected elementary schools (the course require-

TABLE 4.2
Year I, Term I Education Courses by Title and Number of Credits

Course	Credits	Title
EDST 314	3	The Analysis of Education
EDUC 310	4	Principles of Teaching: Elementary
EDUC 315	0	Pre-Practicum Experience
EDUC 316	3	Communication Skills in Teaching
EPSE 313	3	Educational Application of Developmental Theories
EPSE 317	3	Development and Exceptionality in the Regular Classroom
READ 310	3	Introduction to Reading and Language Arts Instruction

TABLE 4.3
Year I, Term II Education Courses by Title and Number of Credits

Course	Credits	Title
ARTE 320	2	Curriculum and Instruction: Art
EDUC 320	2	Curriculum and Instruction: Physical Education
EDUC 321	0	Orientation School Experience: Elementary
ENED 320	2	Curriculum and Instruction: Language Arts
MAED 320	2	Curriculum and Instruction: Mathematics
MUED 320	2	Curriculum and Instruction: Music
READ 320	2	Curriculum and Instruction: Reading
SCED 320	2	Curriculum and Instruction: Science
SSED 320	2	Curriculum and Instruction: Social Studies

ment is listed in Table 4.4). Each candidate works closely with a team of experienced teachers who have been specially prepared for this supervisory and instructional responsibility. Faculty support, advice, and assessment are provided on a regular basis.

- *Year II—Term II:* Following completion of the extended practicum, candidates undertake professional studies (see Table 4.5) to put their teaching competence in a more comprehensive framework of knowledge and understanding. This term includes electives or prescribed studies appropriate to each candidate's academic and professional interests.

British Columbia: Secondary School Teacher Preparation

The secondary school teacher education program prepares candidates to teach one or two subjects, depending on their prior background. The following program, offered at University of British Columbia, is 12 months long (three semesters) and will serve as an example.

- *Term I (September-December):* Prospective teachers are introduced to the theoretical bases of modern educational practice and to strategies and methods of teaching, both in general and in relation to the subject or subjects they are preparing to teach (see Table 4.6). Studies include analysis of the nature and objectives of education and of the developmental characteristics of adolescent learners. Structured classroom observations and teaching experiences (such as tutoring, peer teaching, and microteaching) are provided.
- *Term II (January-April):* This term begins with an intensive, two-week communications course (see Table 4.7) in which attention is given to the candidate's own interpersonal and communication skills in relation to the demands of the secondary classroom. The remainder of the term is spent in a selected British Columbia secondary school where the candidate works with a team of experienced teachers who have been specially prepared for this supervisory and instructional responsibility. Faculty support, advice, and assessment are provided on a regular basis.
- *Term III (May-August):* Following completion of the extended practicum, candidates return to the campus for studies designed to put their teaching competence in a more comprehensive framework of knowledge and understanding (see Table 4.8). An opportunity is provided for them to enhance their subject-matter and/or pedagogical competence.

TABLE 4.4
Year II, Term I Education Courses by Title and Number of Credits

Course	Credits	Title
EDUC 418	18	Extended Practicum : Elementary

TABLE 4.5
Year II, Term II Education Courses by Title and Number of Credits

Course	Credits	Title
EDUC 420	2	School Organization in Its Social Context
EPSE 423	3	Learning, Measurement, and Teaching
One of:		
EDST 425	3	Educational Anthropology
EDST 426	3	History of Education
EDST 427	3	Philosophy of Education
EDST 428	3	The Social Foundations of Education
EDST 429	3	Educational Sociology
Plus	9–12	Credits of academic, curriculum, and professional electives

TABLE 4.6
Term I Education Courses by Title and Number of Credits

Course	Credits	Title
EDST 314	3	The Analysis of Education
EDUC 311	4	Principles of Teaching: Secondary
EDUC 315	0	Pre-Practicum Experience
EDUC 319	0	Orientation School Experience: Secondary
EPSE 306	2	Education During the Adolescent Years
EPSE 317	3	Development & Exceptionality in the Regular Classroom
Plus:	4	Credits related to first teaching subject
	2–4	Credits related to second teaching subject

TABLE 4.7
Term II Education Courses by Title and Number of Credits

Course	Credits	Title
EDUC 316	3	Communication Skills in Teaching
EDUC 329	18	Extended Practicum: Secondary

TABLE 4.8
Term III Education Courses by Title and Number of Credits

Course	Credits	Title
EDUC 420	2	School Organization in Its Social Context
EPSE 423	3	Learning, Measurement, and Teaching
ENED 426	4	Language Across the Curriculum: Secondary
One of:		
EDST 425	3	Educational Anthropology
EDST 426	3	History of Education
EDST 427	3	Philosophy of Education
EDST 428	3	The Social Foundations of Education
EDST 429	3	Educational Sociology
Plus:	9	Credits of prescribed courses related to teaching subject(s)

Alberta

Teacher preparation programs are structured to permit specialization in major and minor areas of subject discipline concentration. There is a close relationship among the faculties of education in terms of the objectives they seek to meet. Each faculty develops its own programs; areas of concentration and terms used to describe content vary. The following outline (Table 4.9, Table 4.10, and Table 4.11) suggests the content of all teacher preparation programs offered in the province.

All teacher preparation programs must include a practicum of a minimum 12 weeks' duration. Most current programs offer significantly longer practicum experiences. Cooperating teachers receive a small stipend but generally view their participation in teacher preparation as a professional responsibility and as a form of professional/personal development. In addition, faculty members and graduate students are assigned to provide each student teacher with further assistance and supervision through classroom visits, consultations, conferencing with cooperating teachers, and engaging student-teachers in reflective practice. Evaluation instruments vary but tend to contain standard criteria, such as

TABLE 4.9
Elementary B.Ed. Program

Year One	Year Two
1. Introduction to Teaching I: Theory and Introduction to Teaching II: Application	1. Education and Individual Development and Interpersonal Communication in the School
2. Major (Art, Drama, Language Arts, etc.)	2. Two courses selected from Art, Drama
3. Non-Education Option	3. Music and Physical Education
4. Non-Education Option	4. Major
5. Open Option	5. Major
	6. Introduction to Computers in Education & Open Option
Year Three	**Year Four**
1. Theory and Practice In Teaching Language Arts in the Elementary School	1. Special Education for Teachers in Regular Classrooms and Non-Education Option
2. Theory and Practice in Teaching Science in the Elementary School and Theory and Practice in Teaching Social Studies in the Elementary School	2. Education Major (Methods)
3. Theory and Practice in Teaching Mathematics in the Elementary School and Practicum in Elementary School I	3. Any two senior-level Educational Policy and Administrative Studies Courses
4. Practicum in Elementary School II	4. Senior Education Option
5. Measurement of Classroom Learning and Administration of Education and the Role of the Teacher	5. Open Option

TABLE 4.10
Secondary B.Ed. Program

Year One	Year Two
1. Introduction to Teaching I: Theory, and Introduction to Teaching II: Application	1. Education and Individual Development and Interpersonal Communication in the School
2. Major	2. Major
3. Major	3. Major
4. Major	4. Major
5. Non-Education Option	5. Introduction to Computers in Education and Open Option
Year Three	**Year Four**
1. Educational Major (Methods)	1. Any two senior-level Educational Policy and Administrative Studies courses
2. Measurement of Classroom Leaming	2. Senior Education Option
3. Practicum in Secondary School I, and Practicum in Secondary School II	3. Open Option
4. Learning from Text in the Secondary School and Special Education for Teachers in Regular Classrooms	4. Open Option
5. Practicum in Secondary Schools III, and Practicum in Secondary Schools IV	5. Major

Note: Content specializations differ between elementary and secondary B.Ed. programs.

classroom management, pacing, planning, communications, questioning techniques, and so forth.

There is also growing interest in having faculty of education students undertake clinical observation or practicum experiences in the schools early in their teacher preparation programs. One faculty requires students to undertake such an experience as a prerequisite. One faculty seeks to assist in bridging the difficult transition from the theoretical aspect of teacher preparation to the realities of the classroom by offering its stu-

TABLE 4.11
Content Specializations

Elementary	Secondary
Major Fields	Major Fields
Art Education	Art Education
Drama Education	Drama Education
French (Basic and Immersion)	English Education
Language Arts Education	French (Basic and Immersion)
Mathematics Education	Mathematics Education
Music Education	Music Education
Physical Education	Physical Education
Science Education	Science Education (Biological)
Social Studies Education	Science Education (General)
Special Education (General and Severe)	Science Education (Physical)
	Social Studies Education
Minor Fields	Minor Fields
Art Education	Computer Applications in Education
Computer Applications in Education	English Education
Health Education	Health Education
Language Arts Education	Language Arts Education
Mathematics Education	Mathematics Education
Native Language Education	Music Education
Religious Studies and Moral Education	Native Language Education
Science Education	Religious Studies and Moral Education
Social Studies Education	Science Education
Teaching English as a Second Language	Social Studies Education
	Teaching English as a Second Language

dents the opportunity, during the final year of the five-year program, to spend a full semester in a regular classroom under the supervision of a certified teacher or a school staff member.

Manitoba

The University of Manitoba's elementary school teacher education program allows candidates to focus their preparation for teaching from kindergarten through grade 6. The program usually consists of 120 credit hours of course work. Sixty hours, or ten full courses of this work, is done in faculties or in schools other than the Faculty of Education, and is designed to provide students with general academic backgrounds and with some limited specialization in teachable subjects. Teachable subjects include art, biology, chemistry, geological sciences, English, French, general science, geography, a "heritage" language (spoken by members of a cultural community established in Manitoba, other than English or French), aboriginal language or another world language, history, mathematics, physical education, physics, and theater.

The secondary school teacher education program allows candidates to focus their preparation for teaching on both junior high and secondary schools. The program consists of 120 credit hours of coursework. Seventy-two hours, or 12 full courses of the work, are done in faculties or in schools other than the Faculty of Education, and are designed to provide students with general academic background plus specialization in at least two teachable subjects. Candidates usually elect five courses (30 credit hours for a teaching major) in one subject and three courses (18 credit hours for a teaching minor) in a second subject. Teachable subjects include art, biology, chemistry, computer science, English, French, general science, geography, a heritage, aboriginal or world language, history, human ecology (after-degree B.Ed. only), mathematics, physical education (after-degree B.Ed. only), physics, and theater.

Ontario

Currently, a preservice program is offered by ten faculties of education. In most cases, the program is given in one academic year and follows a bachelor's program. Teacher candidates choose the grade levels in which to concentrate, and may also choose specific teaching subjects if they choose Grades 7 to 12 Ontario Academic

Courses as an area of concentration. According to regulation, the program includes:

1. A concentrated study of the primary and junior divisions, the junior division, the intermediate and senior divisions, or technological studies
2. Studies in education, including learning and development throughout the primary, junior, and senior divisions
3. Teaching methods designated to meet individual needs of students
4. The acts and regulations in respect to education
5. A review of the curriculum guidelines issued by the Minister, related to all of the divisions, and a study of curriculum development
6. A minimum of 40 days of practical experience in schools or in other situations approved by the minister for observation and practice teaching

Québec

The whole area of teacher training in Québec is moving in new directions that will lead to far-reaching changes in the years to come. The changes cover preservice training, induction, and professional development, as well as the profession as a whole. The reform is being led by the Ministry of Education, in close relationship with its partners: the universities, school and school board authorities, and teachers' unions and professional associations.

The first step in this reform has been the definition of competencies expected of different categories of school teachers—preschool and elementary, secondary, special education, vocational education, and adult education, as well as specialists in the teaching of arts and music, French or English as a second language, and physical education. The competencies expected of secondary teachers have already been set out and the universities must develop new programs accordingly for September 1994.

The main orientation is that of professional training: Faculties of education are asked to reinforce admission requirements, to ensure the integration of and balance between the three components of teacher preparation (subject matter training, training in methodology, and practical training). They must also provide a minimum of 700 hours of practice teaching in schools under the supervision of both the university and an experienced teacher.

As a result of the new requirements, the B.Ed. programs will be extended from three to four years after CEGEP. The one-year, or 30-credits certificate, which is presently offered by universities to candidates who already have a bachelor's degree, should be abolished in the near future. Future candidates will then be integrated in the four-year B.Ed., with appropriate equivalencies.

New Brunswick

All courses proposed in the education component of all degree programs are considered pedagogical courses in which the content and methodology are intertwined. In addition, required and elective courses allow students to choose a constellation of courses that provide them with opportunities to broaden their understanding of education as a process. Students select foundation courses and subject areas or curriculum studies on an equal basis. Subject concentrations are available and encouraged. Students in concurrent programs will mix honors programs in subject areas with foundations in education curriculum and pedagogy.

Student internships of 12 weeks' duration will be supplemented through participation in seminars conducted by faculty and cooperating teachers in host schools. Technological developments will allow students, faculty, and cooperating teachers to communicate using Internet, E-mail, and audiographics to supplement the process of supervision. The model becomes collaborative and less supervisory in nature as all parties to the experience develop together.

Courses at all learner levels—from preprimary to adult—provide a broad perspective of the educational continuum. The requirement for all students to study at two learner levels and the opportunity to experience education on at least two levels through practica contribute to providing students with a solid background in teaching.

Nova Scotia

Approved bachelor's degree programs must include a minimum of 30 semester hours of teacher education, with coursework in the following areas: educational foundations, educational psychology, teaching methodology, and special education, and a practicum of at least 200 hours. Half the course work must be in subjects taught in the public schools.

Differences in the Nature and Content of Teacher Preparation Programs

Differences may exist between teacher preparation programs offered in different provinces, but within each province, there are no significant differences between programs offered for the same teaching certificate. Differences exist between programs specifically designed to prepare for different levels, or types of teaching (elementary school, secondary school, vocational education, special education, arts, physical education). Programs for elementary and secondary school teachers are significantly different.

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Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

As a general rule, there is no formal, specific link between teacher education programs and the provincial school curricula, but the faculties of education usually keep in mind changes in the public school curricula and in public education policy when they prepare or review their programs.

LICENSING

Initial Requirements

Depending on the regulation in each province, graduates of teacher preparation programs are issued interim or permanent professional teaching certificates on the recommendation of deans of education. No exams are required to obtain the teaching permit, but in Québec, candidates from outside the province may be asked to pass an exam in oral and written French or English.

As a general rule, certification is provided for teachers, but in some provinces, other educators are equally certified. This is the case for principals and vice-principals in Ontario, and for school administrators, teachers of trades/occupations, and a variety of non-teaching professionals who provide services within the public school system in Nova Scotia.

Candidates may be certified to teach at all grade levels—from kindergarten to grade 12—in certain provinces, while in others certification is restricted to certain levels or subject areas.

In most provinces, there are no differences between certification for elementary and secondary school teachers, and there is generally only one level of certification for all teachers. This is not the case, however, in Nova Scotia, where there are nine levels of certification, some of which are no longer issued as initial or first-time certificates. Each level of certification corresponds to different requirements in terms of training.

In Ontario, additional qualifications may be listed on the Teacher's Qualification Card. They are acquired through courses offered by faculties of education during fall/winter evening sessions and during intersession evening courses for teachers. Additional qualification courses may lead to specialist, honor specialist, or principal's qualifications. Teachers who wish to be eligible for appointment to the position of vice-principal or principal must hold Ontario principal's certification. This certification is achieved through successful completion of the Principal Qualification Program, which consists of two one-session courses and a practicum. Ontario has recently introduced the Supervisory Officer's Qualifications Program to certify eligible candidates for supervisory officer and business supervisory officer certification. The objective is to provide candidates with the knowledge, skills, and orientation to function effectively as leaders in school boards that have grown in complexity and diversity.

In all provinces, interim or temporary certificates are issued to experienced or inexperienced teachers who have completed their training outside the province.

Holders of an interim certificate qualify for permanent certificates once they have completed one or two years of successful teaching. Permanent certification is issued on the recommendation of the applicant's superintendent of schools or of another provincial officer.

In each province, processes are in place to ensure that allegations of unprofessional conduct and incompetent teaching are investigated and addressed fairly, and to provide teachers with avenues of appeal.

Licensing Reauthorization

There is no requirement for recertification in any of the provinces. In some provinces, additional qualifications are required for positions such as principal and supervisory officer.

In Alberta, three separate legislative acts serve to ensure that teachers have high levels of knowledge, skills, and attributes: the Teaching Profession Act, the provincial Teacher Evaluation Policy, and the Practice Review of Teachers Regulation.

- Under the Teaching Profession Act, the Alberta Teacher Association is required to maintain and enforce a code of professional conduct that deals primarily with acceptable behaviors for teachers in their non-teaching roles.
- Under the provincial Teacher Evaluation Policy, all school jurisdictions and accredited private schools are required to have and to implement teacher evaluation policies that meet guidelines established by Alberta Education.
- The Practice Review of Teachers Regulation provides an orderly means for the Minister of Education to hear and address complaints of alleged incompetent or unskilled teaching practices.

Status of Qualifying Conditions

In all provinces except British Columbia (where certification and licensure have been transferred to the British Columbia College of Teachers), the Minister of Education has the authority to alter certification requirements at his discretion.

In practice, requirements are altered only in cases where no qualified certified teacher is available to fill a vacant teaching position. A temporary letter of approval (or equivalent), usually valid for one year, may be granted to the local school authority for the appointment of a person without teacher's qualifications to fill the specified teaching position.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

As a general rule, there are no formal, provincewide programs to provide support to beginning teachers. Individual school districts are free to implement any or a variety of support programs, and some jurisdictions have done so in many provinces. The type of orientation programs offered range from a single meeting to a long-term induction and mentorship program. The need for more systematic practices to support beginning teachers is felt in many provinces.

In **British Columbia,** the ministry has been involved with five districts in pilot programs to develop formal, detailed induction and mentorship programs. The evaluation of these programs is in the early stages and no real information is currently available.

In **Alberta,** two pieces of legislation promote increased supervision and evaluation for beginning teachers and indicate to teachers that significant professional growth is required early in their careers:

1. The School Act requires that the first year of employment in a school jurisdiction must be under temporary contract. At the end of the first year, the jurisdiction must decide whether to offer the teacher an ongoing contract.
2. Under the Certification of Teachers Regulation, teachers can move from interim to permanent certification only on the recommendation of their superintendent after two years of successful teaching.

As a result of those requirements, most locally developed evaluation policies reflect the need for increased supervision and evaluation of teachers during the first two years of their careers.

In **Ontario,** the Teacher Education Review Committee and the Teacher Education Council both recommended that there be a mandatory, two-year period of induction for all teachers who have completed a preservice program.

In **Québec,** initial preservice training is followed by a two-year probation period, but there is no formal induction program. Probation will be replaced, starting in 1998, by an induction program for beginning teachers. It can be expected that the systematic implementation of this new policy will require some kind of financial support. Pilot projects are currently being carried out in a certain number of school boards with the cooperation of faculties of education to prepare for the general implementation of this new policy.

In **New Brunswick,** an induction program for beginning teachers is in its first year as a pilot program. Currently, it is experimental and no definitive answers are available to the questions raised.

Professional Development Opportunities

In most provinces, teachers have access to different types of professional development opportunities: They can upgrade their classification and salary levels by enrolling in courses/programs offered by universities. They also have access to informal professional development programs or to courses offered by teachers' federations and subject associations, by local school authorities, or by the ministry or department of education (for program and policy implementation purposes). Such programs include conferences, seminars, workshops, and so forth, offered at the provincial, regional, or local levels. Universities can be asked to collaborate in such programs but, as a rule, only formal academic courses count for classification and salary purposes. Some provinces are considering changes in this policy to permit formal recognition of in-service training.

Participation in professional development is usually not linked to years of experience, level of responsibility, salary, or career opportunities. However, it may lead to additional qualifications, as in Ontario, where university courses may be listed on Ontario's Qualification Record Card, and may lead to specialist, honor specialist, or principal qualifications.

In most provinces, professional development is recognized in the provincial school calendar. The official number of days in a school year include up to 15 days for activities other than teaching—many of which are used by schools and school boards to plan in-service work.

The following gives more specific information on in-service training in certain provinces:

In **British Columbia,** the British Columbia College of Teachers is entitled, under the Teaching Profession Act, to carry out and facilitate professional development programs designed to ensure currency and general competence.

Alberta believes that professional development is the responsibility of individual teachers and of their employing school jurisdiction. A recent study indicates that teachers and school jurisdiction can cooperate in enhancing teachers' professional development through tighter links with teacher evaluation. Steps are being taken to provide provincial guidelines on how this can be achieved. Alberta Education has provided support for the development of a consortium of school jurisdictions to determine the need for, and to develop and provide, professional development. While the consortium has a full-time coordinator, the board of directors is predominantly comprised of teachers. In the future, this model may be emulated in other regions of the province.

In **Québec,** the collective agreement provides for the annual allocation of a specific amount of money (C$160) for each full-time teacher for professional development purposes. A joint committee in which the local union and the local authorities are represented decides on the way the money is spent each year.

The ministry is actually preparing guidelines for the continuing education of teachers. These guidelines are based on the following principles: Responsibility for determining professional development needs rests primarily with the teachers; professional development should be accessible to all teachers and take into account the personal, professional, and organizational dimensions of teaching; professional development should be based on the involvement and cooperation of all educators concerned and draw on the expertise and the competency of teachers.

Moreover, professional development should take into account the particular characteristics of school populations and educational sectors; recognize the diversity of possible sites, procedures, and sources of training; and rely on the involvement of teachers and school organizations.

In recent years, professional development in **Nova Scotia** has centered around curriculum in-service training led by the Department of Education to implement new programs and new teaching methodologies. In recent years, the department has also sponsored summer institutes in different subject areas.

Part of the mandate of the Nova Scotia Teachers' Union is to provide professional development opportunities for its membership. It provides assistance to professional associations, supports educational research projects, and gives individual grants for travel and study purposes. Since 1987, the union has promoted the concept of school-based staff development. To encourage schools across the province to adopt this collaborative approach to decision making, it has been providing consulting services and has set up a program for school leadership teams.

Under a negotiated provincial collective agreement, the Nova Scotia Teachers' Union receives an annual sum of C$150,000 (Program Development Assistance Fund), which is distributed to teachers who apply for innovative classroom projects. In addition, under many local agreements, a sum of money is allocated for the professional development of teachers and is generally distributed by a committee made up of teachers and central office staff.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

In **British Columbia,** the main issues and activities concerning teacher education are the following:

1. Development of a computer-based, regionalized teacher supply-and-demand model
2. Development and implementation of a decentralized system of teacher education programs, including programs offered in three university colleges and in rural teacher education programs
3. Evaluation of pilot induction programs—seven school districts have received funds to run pilot induction programs. Such programs have been identified as having great potential for positive effects on teacher retention, on the status of the teaching profession, and on the nature and rate of change in the system
4. Production of a teacher recruitment video to attract highly qualified candidates who reflect the pluralistic nature of British Columbia society. The video focuses on recruiting members of visible minority groups, First Nation people, men (to teach at the elementary level), and women (to teach mathematics and science).

In **Alberta,** the main policy issues are linked with the provincial government's debt-reduction program. Expenditure reduction measures target pre-elementary, elementary, secondary, and postsecondary education. To meet its goal, the government is carrying out a wide-ranging public consultation, which began with discussion on what the "basic education" supported by public funds should comprise, and on which part of services currently being provided in schools should be supported by private funds and/or through local taxation. The implications of this anticipated reduction in government funding will significantly affect all aspects of schooling, teaching, teacher preparation, and teacher professional development.

Given the consultation currently under way, one can only speculate on the range of implications. However, two trends emerged prior to the government's debt-reduction scheme, and are ongoing:

1. Alberta is now working to specify the standards of performance students are expected to meet at all grade levels and in all subject disciplines.
2. The trend toward government deregulation may result in the evolution of a range of educational policies that emphasize desired outcomes rather than input and process variables.

In **Manitoba,** all partners in education are concerned with improving the school environment for both teachers and students. Manitoba Education and Training is addressing the problem of violence in schools through actions such as providing in-service training to teachers and parents on how to deal with violent behavior, appointing a full-time consultant to deal with the problem of violence in the classroom, and providing consulting services to address violence.

More closely linked with teacher training is the trend toward recognition of teaching as a profession. The Manitoba Teachers' Society has proposed that its organization be given statutory recognition as a profession. Central to this proposition is the desire to have control over teacher certification and discipline issues. Manitoba Education and Training is still discussing this issue with the Manitoba Teachers' Society. Related issues of teacher autonomy, discipline, and certification continue to be the subject of meaningful discussion.

Teacher training is another area of concern among all partners. Manitoba's teachers must be able to keep pace with the changing knowledge and skill demands of their jobs. All actions in this regard will be supported and undertaken through partnership. Partners include the Department of Education and Training, educational institutions in Manitoba, the faculties of education, the Manitoba Teachers' Association, and teachers themselves. Manitoba Education and Training, in conjunction with its partners, is considering:

- Reviewing existing teacher preservice training programs to ensure that teachers develop the ability to change.
- Establishing an internship program for teachers. A proposal will be drafted in cooperation with all partners. This would allow teachers to complete a period of training under the supervision of a skilled and experienced teacher.
- Developing, with its partners, a plan for coordinated in-service training delivery and professional development.

Ontario has undertaken a number of cost-cutting measures that are having an impact on current teacher demand. In efforts to reduce spending, school boards have lowered their staffing levels and, as a result, teacher intake has dropped across the province.

The Royal Commission on Learning has been established to examine the broad issues around Ontario's education system. Among these will be curriculum and teacher education. The commission's report was released in January 1995.

The main issues identified in **New Brunswick** are the following:

- Entry into the profession: What criteria should be used for the admission of students to teacher education programs?
- Preservice programs: What should be the nature and content of preservice teacher preparation programs?
- The practicum: How can this potentially valuable experience for student teachers be improved?
- An induction program: How could a meaningful induction program that New Brunswick can afford be designed?
- Teacher recertification: Should teachers be required to recertify periodically? This question leads to discussions on continuing education units and how to record and reward them.
- Mid-career: Should there be concern about the fact that the only clear career path in education at the moment is in administration? Recently a good deal of discussion has taken place regarding the need for a career path that would concentrate on the knowledge base of teaching and its practice.

New Brunswick Education is working on these questions with its partners. It is currently working with universities to change the criteria for admission to the profession and to change the preservice program in order to give greater attention to the study of teaching and learning. It is also working with the universities, school districts, and teacher organizations to revise the practicum and emphasize a team approach to professional growth. Other actions envisaged are increasing support for peer coaching and mentorship training and beginning a review of teacher certification requirements that will lead to discussions on recertification. Finally, New Brunswick Education has instituted an extensive voluntary summer institute program for teachers, the response to which is very encouraging.

In **Nova Scotia,** there is an increasing demand for efficient and effective universities. The rationalization process will involve four main components: vision and long-range planning, institutional renovation, program review, and shared systems and services. Education is counted among the identified priority areas. Other areas are business, management, commerce; earth/environmental sciences; and engineering computing sciences/computer engineering.

In teacher education, the concerns are the following:

- There are only general requirements for initial teacher certification. As a consequence, institutions interpret these guidelines, and there are no standards for programming.
- The perception of the public is that teachers have not received the preparation they need to do the job.

- The province would be better served by establishing fewer, more specialized teacher education institutions.
- The effectiveness of a one-year B.Ed. program has been challenged by both teacher educators and professionals in all facets of public education.
- There has not been a vigorous examination of teacher education in Nova Scotia for many years.

In **Québec,** a major reform of teacher training, which is based on the recognition of teaching as a professional activity, is currently being implemented by the ministry in close partnership with the universities, the school administrators, and the teachers' unions and professional associations.

In 1992, the Minister of Education published a document entitled "The Challenge of Teaching Today and Tomorrow: Renewal and Recognition of the Teaching Profession." It outlines the main courses of action to be undertaken in the near future for the renewal of the teaching profession. The actions focus on three themes: teacher autonomy and accountability, teacher training, entry into the profession and career prospects. They seek to provide answers to the following questions:

- How to ensure quality teacher training that includes knowledge of the disciplines to be taught and knowledge of methodology and practical training, and that prepares future teachers to meet the new challenges of teaching in today's changing society?
- How to ensure quality, practical training based on true partnership between university faculties of education and the schools receiving student teachers?
- How to receive new teachers into the profession and support them during their first years of teaching?
- How to improve prospects for career advancement and diversification and avoid the disillusionment and discouragement to which many teachers fall victim?
- How to make it easier for teachers to take responsibility for their own professional development throughout their teaching careers?
- How to ensure better planning with respect to the employment situation in teaching?

Considerable work has already been done, or is being done, in the above areas, in particular with respect to the definition of the competencies expected of teachers at the end of their initial training; experimentation with different models of partnership between universities and schools in the practical training of student teachers, and the publication of guidelines for both partners in the process; the modification of the probation system in favor of an induction system designed to support new teachers in their first years of teaching; and the development of a policy regarding teachers' professional development.

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Teacher Training and Professional Development in China

Submitted by: Department of Teacher Education, State Education Commission

ECONOMY AND EDUCATION

China is a developing country with a vast territory and a huge population. It has a total land area of 9.6 million square kilometers. According to the census for the year 1990, its total population was 1,130,510,638; the birth rate was 20.98 percent; and the net growth rate was 1.47 percent. The agricultural population constitutes a large proportion of the nation—73.59 percent of the total. There are 56 nationalities in China. The minority nationalities constitute 7 percent of the total population. The distribution of population is unbalanced, ranging from over 2,200 people per square kilometer in Shanghai City to 1.8 people per square kilometer in the Tibet Autonomous Region.

In 1991, China's gross national product was RMB1.9855 trillion yuan (for the purposes of this report, RMB100 yuan equals US $447.66, as reported in the *People's Daily, Overseas Edition,* September 7, 1990); the total national income was RMB1.6117 trillion yuan; the average per-capita income was RMB1,401 yuan; and the total government expenditure was RMB1.6601 trillion yuan, of which RMB41.04 billion yuan was spent on education, which made up 2.6 percent of government spending.

Since 1978, when the more than ten-year period of reforms and opening up to the outside world began (especially the realization of nine-year compulsory schooling, begun in 1986), China has rapidly developed its basic education system. In 1992, there were 729,158 primary schools throughout the country, with 121,641,538 students enrolled. Of these, 88,440 were located in cities and towns, encompassing 29,130,575 students; 640,718 were located in rural areas, with 92,510,963 students. There were 70,680 junior secondary schools, with 39,606,496 students enrolled. Among these, 16,009 were located in cities or towns, encompassing 14,218,547 students, and 54,599 were in rural areas, with 25,387,949 students. The entrance rate for school-age children was 97.187 percent, and the promotion rate was 76.42 percent.

The Chinese government has attached great importance to teachers. In 1992, there were 5.53 million full-time primary school teachers. The ratio of teachers to students was 1:22. The percentage of primary school teachers with qualifications was 82.7 percent of the total. The number of teachers who graduated from secondary *normal* schools (normal schools, like normal colleges and normal universities, are institutes for training teachers; most of them focus mainly on preservice training programs) was 2.97 million, or 53.8 percent of the total of qualified teachers. There were 2.52 million full-time junior secondary school teachers, with a qualification rate of 55.6 percent. The teacher–student ratio was 1:16 (junior secondary school teachers are those who have attained the State's prescribed level of education: completion of, or above, teachers' college or other colleges). In 1992, there were 1.12 million teachers who had received professional training from teachers' colleges, representing 44.5 percent of the total qualified junior secondary school teachers. In addition, there were also 474,078 primary school *Minban* teachers (teachers financially supported by the community, or *Minban*), which accounted for 8.6 percent of the total, and 127,740 *Minban* teachers from junior secondary schools, accounting for 5 percent of the total. *Minban* teachers were mainly situated in rural primary schools, many of which (especially those located in mountainous areas) conduct schooling through multigrade teaching in one classroom; a considerable number of these schools, furthermore, are run by one teacher.

Since 1978, Chinese teachers' salaries have been significantly increased and their living conditions have been greatly improved. In addition to salaries, teachers can receive subsidies based on the length of time teaching, as well as bonuses that are calculated at 10 percent of salary. Furthermore, they receive the same income after retirement. However, teachers' incomes are still lower than those of other professionals. According to data for 1991 provided by the Statistics Bureau, the annual income for teachers was an average yuan 2,186 per teacher, which was 9.8 percent lower than salaries for workers involved in the industrial sector; 17.6 percent lower than salaries for workers in the architectural trade; and 15.04 percent lower than salaries for workers in the scientific and technological sectors. In addition, *Minban* teachers do not receive the same payment as regular, full-time teachers, which has had negative effects on this teaching sector. This factor can be seen as one of the obstacles to the implementation of compulsory education in rural areas.

In order to meet the requirement of popularizing nine-year compulsory schooling, a nationwide network of teacher training has been established, aiming at upgrading and improving the quality of schoolteachers. Within 14 years—from 1978 to 1992—the qualification rate for primary school teachers increased from 43 percent to 82.7 percent, and for junior high school teachers, from 9.8 percent to 55.6 percent. On the other hand, for a variety of historical and economic reasons, there has been a great shortage of educational expenditure, resulting in low teacher salaries and in a low quality of teachers, many of whom find themselves unable to keep up with the needs of social and educational development.

THE PRESENT STATUS OF TEACHER EDUCATION IN CHINA

The System

In order to meet the different needs of teachers of various subjects and at different levels in basic education, there has been a rapid development in teacher education in China. Stable bases for new teachers have been set up. At the same time, a network of in-service training has been formulated in provinces, municipalities, and counties. A preliminary system of teacher education, combining preservice with in-service training, has thus far been established.

Preservice Training

Standard methods and other channels of preservice teacher training are displayed, respectively, in Table 5.1 and Table 5.2, by institution, length of time enrolled, objective of training, and degree obtained.

In-service Training

Standard methods and other channels of in-service teacher training are displayed, respectively, in Table 5.3 and Table 5.4, below, by institution and objective of training.

The General Aims of Teacher Education

- To address the needs of building socialist modernization
- To address the needs of reform and development of basic education and vocational/technical education
- To gradually formulate a system of teacher training with unique characteristics
- To establish primary schools, middle schools, and vocational/technical teaching contingents of sufficient quantitiy, reasonable structure, good quality, and expertise in education and teaching

At present, China has established requirements and standards for primary and high school teachers: (1) Primary school teachers should have normal school certificates; (2) junior high school teachers should be graduates of normal college; and (3) senior high school teachers should have educational backgrounds including normal universities. Furthermore, the Chinese government stipulates that teachers must receive in-service training that is closely related with their career development while they are teaching at schools. Generally speaking, the normal university, normal college, and normal school are the foundations of pre-

TABLE 5.1
Standard Methods of Preservice Teacher Training

Institution	Length	Enrolled From	Objective	Degree
Normal university	4 yrs	Senior high graduates	Senior high teacher	B.A. or B.S.
Vocational normal	3–4 yrs	Senior high graduates	Junior & senior high teacher	B.A. or B.S certificate
Normal college	2–3 yrs	Senior high graduates	Junior high teacher	Certificate
Normal school	3–4 yrs	Junior high graduates	Primary school teachers	Certificate
Normal school for special education	3–4 yrs	Junior high graduates	Teachers of primary school for children with special needs	Certificate
Preschool normal school	3–4yrs	Junior high graduates	Kindergarten teacher	Certificate

TABLE 5.2
Other Channels for Preservice Teacher Training

Institution	Length	Enrolled From	Objective	Degree
Teacher training classes in universities	4 yrs	Senior high graduates	Senior high teacher	B.A. or B.S.
Department of education in universities	4 yrs	Senior high graduates	Senior high teacher	B.A. or B.S
Teacher training classes in TV universities	3 yrs	Senior high graduates	Junior high teacher	Certificate

TABLE 5.3
Standard Methods of In-service Teacher Training

Institution	Providing Training For
Provincial teacher training college	Senior and junior high school teachers
Regional or municipal teacher training colleges	Junior high school teachers
Teacher training school at county level	Primary school teachers

TABLE 5.4
Other Channels for In-service Teacher Training

Institution	Providing Training For
Department of Adult Education in universities	Senior and junior high school teachers
China T.V. Normal College	Senior and junior high school teachers
Self-study for teacher qualification	School teachers

service teacher training, while teacher training colleges and schools mainly bear the responsibility for in-service training. In recent years, more and more institutions dealing with preservice training have been involved in conducting in-service teacher training programs. There is, therefore, some overlap between these two kinds of institutions.

The Objectives

Preservice Training

Normal University: These institutions provide four-year training to senior high school graduates and to those with equivalent schooling records. After study, students are awarded bachelor's degrees and state-approved qualification for teaching in senior high schools.

Normal College: These colleges mainly conduct three- or two-year training programs for senior high school graduates and for those with equivalent schooling records. The graduates are awarded certificates and state-approved qualification for teaching in junior high schools.

Normal School, Preschool Normal School, and Normal School for Special Education: Preservice training takes place in these schools for junior high school graduates and for those with equivalent schooling records. Through three- or four-year study programs, the students are awarded certificates and state-approved qualification for teaching in primary schools and in kindergartens, as well as in primary schools for children with special needs.

In-service Training

Provincial Teacher Training College: This kind of institution provides diploma courses to (1) senior high school teachers who have not attained the state's prescribed level of education and (2) qualified junior high school teachers who are seeking further study in order to reach normal university level. Teachers are trained through full-time or correspondence study, and receive qualification after their training is completed.

Regional/Prefectural Teacher Training College: These colleges conduct remedial training for junior high school teachers who have not received normal college education. In addition, they are also engaged in extended training of "key" primary school teachers, who serve the same function as "backbone" teachers—teachers who hold a leading place in their profession. Full-time and correspondence study are the main types of training, and these institutions also award teaching certificates to graduates.

Teacher Training School at County Level: Those teachers working in primary schools without state-issued qualification are expected to seek additional in-service training in teacher training schools through part-time or correspondence study.

In addition to remedial courses, in-service teacher training institutions are also responsible for conducting continuous education and induction training for new teachers. Some of the training programs are of three-month duration, while others take place over only several days.

Data on Teacher Training

Table 5.5 provides statistics on preservice teacher training institutions in 1992.

From 1981 to 1990, according to statistics, normal universities trained 430,000 student teachers, normal colleges trained 905,000, and normal schools trained 1,922,000 (including 89,000 graduates from preschool normal schools).

Table 5.6 provides statistics on in-service teacher training institutions in 1992. From 1981 to 1990, according to statistics, teacher training colleges trained 1,160,000 high school teachers and teacher training schools trained 1,500,000 primary school teachers. Table 5.7 provides statistics on staff distribution in teacher training institutions in 1992.

The Content[1]

Normal universities, normal colleges, and teacher training colleges train teachers in specialized subject matter areas generally based on the curriculum of secondary schools. In normal schools and teacher training schools, on the other hand, there are no specialized divisions of study.

Division of Subject-Matter Areas of the Higher Teacher Institutions

In recent years, there have been great changes in the provision of programs at many teacher universities and colleges. In addition to the subject-matter areas corresponding to the curriculum of secondary schools, these universities and colleges have also established many new specialized courses, in accordance with the requirements of social development and construction, and the growth of science, technology, and education. These new courses are not exclusively designed for training teachers; they also include such offerings as computer science, radio electronics, biochemistry, educational media, and library science.

As specified in the General Programs for Institutions of Higher Education (rev. ed., 1963), there previously were 17 subject-matter areas for higher teacher education programs: language and literature (Han), Chinese minority languages and literature, Russian, English, history, political education, school education, preschool education, psychology, mathematics, physics, chemistry, biology, geography, physical education, music, and fine arts. By 1981, however, the number of areas of study for teacher education programs had already grown to 37. The additional fields include Japanese, German, French, philosophy, arts, computer science, astronomy, economics, library science, biochemistry, radio electronics, geomorphology, educational media, mechanical manufacturing, and industrial automation (State Education Commission, 1985).

The addition of specialized fields of study continued, resulting in a total of 67 study areas by 1985. The total number of all specialized program offerings in all

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[1] This section is taken from Z.-L. Young, Lin, B., & Su, W.C., 1989. *Teacher Education in the People's Republic of China*. Beijing: Beijing Normal University Press.

TABLE 5.5
Data on Preservice Teacher Training Institutions, 1992

Institution	No. of Institutions	No. of Graduates	Enrollment	No. of students
Normal university and college	253	167,713	166,364	470,186
Normal school	880	230,691	216,117	623,360
Preschool normal school	68	13,184	13,158	37,995

Source: Yearbook of Chinese Educational Statistics, 1993.

TABLE 5.6
Data on In-service Teacher Training Institutions, 1992
(for Diploma and Certificate Courses Only)

Institution	No. of Institutions	No. of Graduates	Enrollment	No. of students
Provincial and regional/ municipal teacher training college	254	104,816	60,334	185,591
Teacher training school at county level	2,061	200,620	141,072	463,204

Source: Yearbook of Chinese Educational Statistics, 1993.

TABLE 5.7
Data on Teacher Educators of Training Institutions, 1992

		No. of Teachers					
Institution	Total No. of Staff	Subtotal	Senior Prof.	Lec.	Assit. Lec.	Lec.	Teacher
Normal univ. and college	152,487	75,484	1,616	14,293	28,171	26,138	5,266
Normal school	94,422	53,188		5,271	14,047	20,745	13,125
Preschool normal school	7,064	4,033		424	1,132	1,544	903
Teacher training college	44,354	23,294	92	4,711	8,400	7,701	2,390
Teacher training school	71,769	40,290					

Source: Yearbook of Chinese Educational Statistics, 1993.

institutions increased from 641 in 1981 to 747 in 1985. Programs were offered in classical literature, Chinese as a foreign language, economic management, law, journalism, systemic physics, environmental science, international finance, mechanical drafting, electronic accounting, economics, mathematics, computer usage, industrial business management, Chinese secretaryship, and arts and crafts. The specialized programs with the greatest increase in participation are school education, which was offered in 24 institutions in 1985 as contrasted with only 5 in 1981; preschool education, offered in 10 institutions in 1985 and in only 5 in 1981; and computer science, offered in 14 institutions in 1985 and in only one in 1981.

Programs of normal university—preservice teacher education: Curriculum generally consists of five components—political theory (philosophy, economics, etc.); foreign languages; education courses (educational theories, psychology, and methodology of teaching); physical education; and specialized courses in major fields (basic specialized courses and elective courses). Student teaching consists of classroom teaching and work as a home-room teacher. No diploma is awarded to those who are disqualified through poor performance in student teaching. Term examinations are administered and regular assessments are conducted; on the whole, two to three subjects are examined during a term. Skills in laboratory work and its supervision are required for those who are majoring in the sciences. Research training is conducted for the graduation thesis during senior year.

Programs of normal college—preservice teacher education: Curriculum consists of political theory, foreign languages, education courses, physical education, and specialized courses in the major field. The program of study is the same as that of undergraduate programs. *Programs of normal school—preservice teacher education:* Curriculum consists of political science, Chinese language (ethnic minority language for ethnic minority teacher training schools), mathematics, physics, chemistry, biology, hygiene, history, geography, foreign language, psychology, educational theory, teaching methodology of primary mathematics, teaching methodology of primary science, physical education and its teaching methodology, music and its teaching methodology, fine arts and its teaching methodology.

Student teaching is conducted for final practice teaching—a total of eight weeks is required in the three-year program and ten weeks in the four-year program (including regular observation and participation and the final practice teaching). This can be scheduled in one time block or in several sections. However, in the final term, the time allotted should not be less than four weeks.

In-service Training

The general goal of in-service training for primary and high school teachers is to improve teachers' professional quality; to train a number of "backbone" teachers, for example, to have some of the teachers become leaders in academic subjects and experts in education and teaching; and to build a qualified teacher contingent to satisfy the need of nine-year compulsory education, a teacher contingent that adheres to socialist direction with noble moral character, reasonable structure, and good quality. Based on this general goal, schools for primary and middle-school teachers take pride in following in-service training programs.

Teaching materials and methodologies: During the ten years from 1966 to 1976, the primary school and middle-school teacher contingent was badly damaged. Many who had never received any professional training were involved in teaching. Since 1982, the state has begun to train primary school and middle-school teachers and to examine teaching materials and teaching methods, to ensure that teachers have a good command of subject teaching materials and are able to transmit the correct knowledge to their students. By 1985, 90 percent of primary school and middle-school teachers throughout the country took part in training, passed examinations, and were awarded a "Certificate of Teaching." The training and examinations broadened teachers' range of knowledge.

In-service training for college qualification: In 1979, the number of full-time primary school teachers throughout the country who had completed the state-prescribed level of education in normal schools was 47 percent of the total. Only 10.6 percent of full-time junior middle-school teachers met these state requirements. According to the requirements of the State Education Commission, teacher training schools and education colleges had offered supplementary education to teachers in primary schools and junior middle-schools, respectively, in order to help them attain state standards for normal school education levels. Teachers had been allowed to leave their posts to study, or to obtain systematic training through correspondence. Since 1986 however, the state has introduced a new examining system in which primary and middle-school teachers who have not attained the qualifying level of schooling can choose to sit professional teaching and teaching skills examinations and, if they pass, be awarded a "Certificate of Professional Qualification." Through this system, primary school teachers can obtain schooling-record equivalency up to the level of secondary normal school graduates, and junior middle-school teachers can obtain schooling-record equivalency up to the level of tertiary professional normal school graduates. By the end of 1992, 475,862 primary school teachers and 105,723 junior middle-school teachers had participated in examinations and obtained Certificates of Professional Qualification.

Continuing Education

Due to a number of factors—a shortage of backbone primary and middle-school teachers; the fact that many teachers' abilities in education and teaching were not up to the professional standards of the posts they held; and because many young teachers badly needed training in teaching ethics—the State Education Commission decided that primary and middle-school teachers with qualifying schooling records should receive continuing education. The decision was made that this kind of continuing education would be primarily carried out in places where the rate of teachers with qualifying schooling records was relatively higher. Because of the low rate of teachers with qualifying schooling records in junior middle-schools all over the country, the stress on continuing education would be put on primary schools, where the rate is over 80 percent. This continuing education is guided by the following principles, according to attendant circumstances and conditions:

1. *Induction training of new teachers:* New graduates who are assigned to primary schools and

TABLE 5.8
The Administration of Teacher Training

Administration	Institutions
Education Commission (national level)	6 key normal universities
Education Commission (provincial level)	72 normal universities
Education Commission (prefecture level)	175 normal colleges
Education Commission (county level)	948 normal schools

Source: Yearbook of Chinese Educational Statistics, 1993.

who have qualifying schooling records for normal school education or above are trained so that they can meet the needs of teaching in a short period of time.

2. *Professional qualifications:* On the basis of demand for primary school teachers' professional qualifications at present, and of demands for higher levels, primary school teachers are trained so that they can be competent at their present jobs.
3. *All-around training:* Apart from the main curriculum, teachers are also trained in subjects such as moral education, society, nature, art, music, physical training, physical education, and so forth.
4. *Training for backbone teachers:* Young teachers are trained in accordance with the demands of becoming backbone teachers and leading persons in different subjects.
5. *Knowledge renewal and application of new technology training:* New knowledge should be passed on to teachers and they should learn to use new education skills so that they can meet the new demands of social development for primary school education.
6. *Training of scientific research abilities:* Through the study of teaching materials, teaching methods, and scientific research methods in primary school education, teachers can acquire a correct understanding of the national education guiding principle, teaching plan, and syllabus. They can master teaching materials, teaching methods, and general research methods.

Administrative System of Teacher Education in China

In general, educational administration takes place at four levels: the State Education Commission, the Provincial Education Commission, the Prefecture Education Commission, and the County-level Education Commission.

At present, of the 78 normal universities, six key universities are directly under the control of the State Education Commission, while the remainder, and 175 normal colleges, are dominated by the Provincial Education Commissions or by the Prefecture Education Commissions; the County-level Education Commissions are responsible for 948 normal schools. Table 5.8 below shows the distribution of administration for teacher training.

The role of the State Education Commission is intended to be one of guidance. It plans teacher training programs as a whole, holds conferences to discuss problems, and allocates funds to local authorities. Moreover, the six key normal universities also serve as models for other institutions that the State Education Commission hopes to put into place. Local authorities, however, are responsible for the actual provision of teacher training, as well as for carrying out the instructions of the State Education Commission.

The establishment, alteration, or termination of normal schools is decided by provincial-level governments, although the State Education Commission must be notified of all decisions. There is a designated department (the Department of Teacher Education) within the State Education Commission that oversees general policies and macroplanning for normal schools. Similar divisions exist within provinces, autonomous regions, and municipalities for establishing specific policies and planning regarding the development of secondary teacher education and supervising and evaluating implementation of policies concerning local normal schools.

Education Expenditure[2]

All institutions for initial teacher education—including normal universities, normal colleges, vocational normal colleges, and normal schools—are state-run, and thus financial support is provided by the government. Like expenditures for other schools, those for teacher education can be divided into two categories: instructional and capital expenditure. Instructional expenditure refers to such things as staff salaries and benefits, financial assistance for students, equipment installation, books and periodicals, operating expenses, instructional support services, research, administrative services, and part-time education. Capital expenditure refers to capital construction of school buildings. Specific financial sources for teacher training institutions in China depend mainly on the level and type of institution. Funds for higher teacher education are provided for in the State budget of higher education, while secondary teacher training schools are funded as part of general education. Financial support for normal colleges and normal universities under the direct control of the Department Committees of the State Council is sponsored by the committees themselves. The six normal universities mentioned above, for example, are funded by the State Education Commission. However, most of the normal colleges, normal universities, and vocational normal colleges are controlled by provinces, autonomous regions, and municipalities, and thus are funded locally as part of the local budget for higher education. Similarly, for normal schools, the expenditure is part of the local budget for general education.

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[2] This section is taken from Z.-L. Young, Lin, B., & Su, W.C., 1989. *Teacher Education in the People's Republic of China.* Beijing: Beijing Normal University Press.

Normal universities, normal colleges, and normal schools are generally funded according to the number of students enrolled and designated by the state plan. This is to encourage the full use of the potential of each school and college, in order to promote the expansion of enrollment and to expedite growth. The standards for funding vary—from those of the central to the local governments, from provinces to municipalities, and from year to year. Funding for normal universities directly under the State Education Commission is generally an average of RMB4,925 yuan per student annually (1994 statistics). Policy dictates that the funding standard for local normal colleges and normal universities be the same as that for institutions directly under the State Education Commission. Funding for normal schools, while not equivalent, is administered in a similar way.

However, because of the differences in economic strength among provinces and regions, the actual average annual funding per student varies from place to place. Some of the richer regions contribute more for educational expenditure, while the poorer provide less. For instance, in Shanghai, the average expenditure for each student in teacher training schools is about RMB3,465 yuan annually, whereas in some poor districts, the average expenditure for each student is only RMB1,107 yuan per annum. The average is around RMB1,586 yuan per year per student in an average district (statistics reported by the Department of Educational Planning, 1991). Under special circumstances, the state may also subsidize equipment installation and maintenance, or provide additional funds to solve exceptional difficulties encountered in enrollment, teaching, research, or living. These expenditures generally depend on the overall financial capacity of the central and local governments, and on the status of the schools.

As regards in-service teacher education, funding at different levels is allocated by the local governments on the basis of actual conditions, and is reflected in the local budget as education and capital construction expenditure. In practice, the allocation of these funds is generally designed to meet the actual requirements of teacher education and its specializations. In principle, it should be formulated in accordance with state regulations.

CHALLENGES AND STRATEGIES

The Situation and Challenges Faced by Teacher Education in China

China's energetic drive for reform and for opening to the outside world, as well as its modernization, has arrived at a new stage. In this new stage, China is engaged in active efforts to establish a socialist market economy system, and is speeding up the pace of reform and modernization. As a result, economic construction and social progress are making big strides. The new situation has not only provided China with a rare chance to accelerate reform and all-around development of educational enterprise, but has also posed significant challenges. One of the challenges is to find out if teacher education can adapt itself to measures for the systematic reforms of a socialist market economy, and to the rapid rate of social economic change. Another is to find out if teacher education can keep abreast of reform and development of basic education in China.

Education must serve socialist economic construction. In fact, challenges to teacher education stem from China's economic development. The acceleration of reform, of opening up to the outside world, and of modernization rely on scientific technology and education. The key link lies in the improvement of laborers' competence, which mainly depends on the quality of their basic education. Therefore, urgent demand is primarily posed for speeding up development and for the improvement of basic education. Consequently, the demand is put forward for the development of teacher education and the improvement of teacher competence.

In order to meet the need for various talented personnel to participate in economic construction and social development—especially on the junior and intermediate levels—the educational structure will be, to a large extent, readjusted. In an effort to accomplish this goal, the number of senior secondary vocational and technical schools will be significantly increased, while junior middle-school graduates with nonqualifying certificates for higher learning will receive proper vocational and technical training. How tertiary teacher education can cultivate new types of professional teachers to grasp the knowledge and skills of vocational and technical education is an important question.

The gradual establishment of a socialist market economy will have a profound influence on the systems and models of basic education, and on vocational and technical education. What has become an urgent issue in teacher education is the question of how it can accelerate its development, deepen its reforms, and set up a corresponding new system in the process of changing from a highly planned economic system to a socialist market economy. Additional challenges are those posed by the reform and development of basic education.

By the year 2000, in the light of China's plan for education, nine-year compulsory education (including vocational and technical education at the junior high school level) will be popularized in the country, and senior secondary education will have been universalized in developed areas. The demand for preschool education will be satisfied in most large and medium-sized cities, while in rural areas, preschool education will have made big strides. To realize these objectives, new and strict requirements should be placed on the size and the quality of various kinds of teacher education institutions.

Primary and secondary education in China is now undergoing reform and changing from "the education of preparing for examinations" to the orbit of "the education of competence cultivation." The former places particular stress on imparting knowledge while the latter aims at improving students' morality, knowledge of science and technology, working skills, and psychological competence. Such a change will pose a challenge to current teacher education in the areas of guiding principles, ideas, building teacher contingents, specializations, and curriculum.

Social progress and development of science and technology require teachers to keep abreast of the latest developments and achievements in their specialized fields; to have a grasp of modern educational thought, educational theories, and methods, and the modern technology of teaching; and to acquire specific abilities in conducting educational research. Questions regarding this process are: How to further overcome, to a certain extent, improper aspects of teacher education affecting social progress and basic educational development? How to further emancipate people's minds and change their educational ideas in the light of the practical needs of the socialist modernization drive? How to readjust the structure of curriculum and renew teaching contents and methods? These are problems in need of urgent solutions. Teacher education in China is facing very significant challenges—challenges that also provide significant opportunities for progress.

The Aim and Strategy for the Development of Teacher Education in China

The Essentials for China's Educational Reform and Development, a document jointly promulgated by the Central Committee of the Communist Party of China and the State Council on February 13,1993, offers a blueprint for the reform and development of teacher education in the 1990s. The general aims for normal education development by the end of this century are: (1) to establish a basic framework of socialist teacher education, with Chinese characteristics, that meets the needs of the socialist modernization drive and is compatible with the reform and development of basic education and vocational and technical education; (2) to lay a solid base for the development of teacher education in the 21st century; and (3) to train a well-structured and comparatively stable contingent of teachers with professional morality and competence. The concrete objectives for the reform and development of teacher education are as follows:

1. The model of teacher education should be reformed and a new system developed in which various independently established institutes for training teachers at all levels would serve as the main foundation; other types of colleges and schools would also play a role in training teachers, and preservice training and in-service training of teachers would be well integrated.
2. As regards the management system of teacher education, the relation between government and school would be rationalized in order to enable schools to have decision-making powers of their own, and to establish a mechanism of self-development, self-restriction, and self-adjustment for serving the needs of the society and of basic education.
4. Various kinds of normal schools at all levels would adhere to the standardized conditions for running schools and enhance their administration and management with their own styles. Efforts would also be concentrated on running a number of good quality normal schools and colleges to serve as models. In the early 21st century, a number of normal schools, colleges, specializations, and disciplines will be well developed in respect to their educational quality, research, and management.
5. A system of continuous education for primary and middle-school teachers, and a complete and

integrated network for training teachers at the provincial, regional and county levels, as well as in other kinds of schools, will be established, with teacher training schools and colleges as the main channels. The institutions of broadcasting, TV, and audiovisual education would be used as supplementary channels, with linkups to standard teacher educational outlets.

6. Along with the goal of completion of extra education for the schooling record by the end of this century, the proportion of primary school teachers and middle-school teachers with state-issued certificates of schooling records and specialization qualifications would surpass 95 percent and 90 percent, respectively. Consequently, the overall quality of teachers with education below college level would be improved. The proportion of primary school teachers with college education would increase year by year. The proportion of the same kind of teachers in the counties and small towns across the country would increase by a large margin.

To realize the above objectives, the theory of establishing socialist characteristics in China must be employed as a guideline for emancipating people's minds and for encouraging them to do an earnest and solid job. In carrying out *The Essentials for China's Educational Reform and Development* efforts should be made to speed up educational reform in light of China's practical conditions, and to broaden channels of exchange with other countries. The new methods of developing teacher education under the system of a socialist market economy should be explored, according to the objective laws of education, so as to meet the requirements of accelerating reform and development of secondary education. Finally, the educational guiding principles must be comprehensively implemented for improving educational quality, so that we can bring teacher education in China up to a new level in respect to its quality, structure, and effectiveness.

Concrete and Effective Measures

Enhancing the professional position of teachers and establishing the strategic standing of teacher education: Corresponding policies and appropriate measures should be adopted to make teacher education more scientific and specialized. We should improve the social position and well-being of primary and middle-school teachers and make teaching into an admirable profession. This is a prerequisite for establishing the strategic position of teacher education.

Formulating the development program for teacher education and reforming the management system of teacher education: Under the state's macrolevel guidance, the provinces, autonomous regions, and municipalities should play the major role in making a scientific calculation of the future demand for teachers below the secondary education level, and guaranteeing the coordinated development of various kinds of teacher education in terms of speed of development, size, structure, and distribution. In developing teacher education, measures suitable to local conditions should be taken, and the overall plan should be conceived in order to achieve the greatest possible benefits. Developed areas should be encouraged to proceed in developing teacher education and in increasing the proportion of primary school teachers with formal schooling records from secondary normal schools, as well as the number of junior high school teachers with normal college degrees. Some undeveloped areas will receive help to reach this goal. As far as the country as a whole is concerned, the key point in developing education is to satisfy the demand for teachers in order to popularize nine-year compulsory education. At the same time, the problem of shortage of teachers for specialized courses in vocational and technical education, and for special education, should be solved through rationalization of the structure of teacher education. Appropriate attention should also be paid to the demand for qualified teachers in senior secondary education.

Increasing the educational budget and further improvement of the conditions of teacher training: The state will focus financial aid on some selected areas. Local financial allocation will play a major role in running schools. Local governments at all levels should increase budgets for teacher education every year to guarantee the superior strategic position of teacher education. In order to change the former centralized system of state financial allocation to teacher education, more channels and more means should be utilized to raise funds. Organizations, enterprises, and individuals are encouraged to donate money to teacher education. International projects of bilateral and multilateral cooperation should receive special attention. Foreign loans and funds must be utilized properly. Through joint efforts, normal schools and colleges will be able to attain the national unified standards.

Broadening the channels of teacher training: The old system of training teachers through normal schools and colleges should be reformed and replaced by a new model. In the near future, a new system of pre-fixed service orientation will be adopted in some independent secondary normal schools, and in specialized normal schools, to meet the demands of compulsory education. The normal colleges will be supported in efforts to make pilot experiments and to implement major reforms aimed at improving social benefits and the quality of education. The advantages of ordinary colleges and universities—especially colleges of science, engineering, agriculture, and medicine—should be brought into full play for training teachers in specific subjects. A network of teacher training at four levels—school, county, region, and province—should be set up for vocational education teacher training. By rationalizing the system and by linking up different training channels, the institutions of adult education—such as teacher training schools, correspondence schools, broadcast and TV schools, and certificate examinations for independent study—can make a comprehensive effort to help train primary and middle-school teachers.

Deepening the reforms of teaching with the improvement of teaching quality as a core goal: Active measures should be taken to satisfy the needs of the reform and modernization program, and to adapt to the reform and development of secondary education. These include establishing new ideas of education, changing the concepts, and renewing teaching contents and methodologies. The classified standards of teacher training quality must be worked out, and the rational structures of knowledge and ability requirements for teachers must be developed. Students in normal schools and colleges should be provided with reinforced preservice training—which should include values such as professional consciousness, ethics, knowledge, ability, and self-development—so as to cultivate them for functioning as the qualified teachers required by society.

The normal schools and colleges should make energetic efforts in curriculum reform. The system and content of teaching materials should be renewed to reflect both the excellent traditions of Chinese and world civilization and the latest developments of modern science and technology. Academic and professional characteristics should be unified. The uneven development of different areas in China should be taken into full consideration when contemplating reform of curriculum. Since over 80 percent of the population of China live in rural areas, the focal point of basic education and the main object of teacher education reside in rural areas. Therefore, teacher training should serve the needs of rural development, which is one of the difficulties for teacher training in China. Accordingly, the structure of specializations, curriculum, and teaching content must be reformed. Programs of teacher training suitable to the demand of rural education for teachers at different levels should be explored. As to potential teachers for rural areas, they should be taught with the teaching materials appropriate to the local conditions. They can be cultivated as all-around teachers with a command of both knowledge and practical skills. In the minority nationality areas, special attention should be given to the training of bilingual teachers.

Reforming systems of admission and distribution of teacher education: The former centralized model of enrolling new students according to the state plan must be replaced by integrating the state-assigned plan as a main task. The state assigned the fixed-training task for meeting the needs of underprivileged areas, and for nine-year compulsory education. Special policies should be formulated for encouraging middle-school graduates who excel at their studies to choose normal colleges for advanced studies. To enable students from underprivileged areas to return to their places of origin after graduation, the effective method of preoriented admission and distribution must be continuously implemented, and the proportion of admissions of in-service training personnel with rich practical experience should be increased. Some local teachers can be enrolled by normal colleges for further training, thus improving the status of new sources of students at normal colleges. A compulsory period of service, as teachers in general, for graduates from normal colleges should also be established.

Reinforcing educational research and strengthening international cooperation and exchange in teacher training: Theories of teacher education can be drawn from study and analysis of historical development, and from the present situation and future tendency of teacher education. All normal schools and colleges should study requirements and guidelines of school management and teacher training, accumulate the teaching experiences of excellent teachers, and cultivate new theories of teaching.

The research and study of teacher education in other countries should be strengthened. The wealth of experience from high standards of achievement in all civilizations, and of successful experience in managing teacher education in other countries, should be utilized as a learning tool for improving the level of teacher training in China. Further effort should be made to broaden the extent of opening to the outside world, and to create conditions for expanding international exchange and cooperation in the field of teacher education. Normal schools and colleges should establish relations with their counterparts in other countries so that we can utilize information from various channels to promote international exchange and reform and development of teacher education in China.

In order to present a complete picture of China's system of teacher education, the following sections will address the structure of curricula in normal schools and the implementation of continuing education and other efforts to improve the quality of primary and secondary school teachers. An overview of educational reform as conducted in Fujian Province can be found in Appendix 5-A.

THE STRUCTURE OF CURRICULA OF NORMAL SCHOOLS IN THE PEOPLE'S REPUBLIC OF CHINA

At present, preservice training of primary school teachers is largely carried out by normal schools. These schools recruit their students from graduates of junior secondary schools who have completed Nine-Year Compulsory Schooling (NYCS). They mainly offer three-year courses. New entrants have little preparation in knowledge and skills relevant to the initial education of teachers. In order to prepare qualified primary teachers in a course with a duration of three years, the State has adopted a number of measures related to the recruitment of new entrants, school management, improvement of physical facilities, and teaching staff development. Curriculum development, especially in terms of the structure of normal school curricula, is a crucial issue with a bearing on the quality of education and training provided by normal schools. Over the years, we have endeavored to find a curriculum structure for normal schools that can:

1. Better realize the goal of primary teacher training within a course of three-years duration, based on NYCS
2. Adapt, at the same time, to the vast disparity in economic and educational development among various localities (with concomitant varying demands made on the qualifications of primary teachers)
3. Meet the needs of overcoming the danger of excessively examination-oriented primary education
4. Create conditions conducive to the all-around development of the new generation

The curricula of all normal schools in China are based on the Three-Year Normal School Teaching Scheme (TYNSTS), formulated and promulgated by the State Education Commission in 1989, which was the outcome of extensive experiments and reforms conducted in the previous year with a view to creating a more rational curriculum structure. This document provides the reference for subsequent discussions concerning educational reform carried out in Chinese normal schools.

The TYNSTS serves as a guide to curriculum design adapted to local conditions, with the following characteristics in its structure:

- The aims and objectives of the normal schools constitute the foundation of the teaching plan, which consists of a core of obligatory subjects to be complemented or supplemented by electives conceived to facilitate the integration of academic subjects with activity subjects and practical subjects.
- The underlying idea of this plan is to make the structure of normal school curriculum a dynamic one, subject to modifications in the course of its implementation in response to changing circumstances and local conditions.

Thus, local authorities enjoy a large measure of autonomy in making necessary modifications in an effort to optimize the plan's implementation and effects, and in the spirit of combining unity with flexibility. It therefore seems to us that it contributes to creating more rational relationships between academic subjects and professional subjects, between the acquisition of knowledge and the acquisition of skills, and between theory and practice, and that it also embodies the characteristics of preservice education. For a more detailed presentation of the plan and its implementation on local levels, see Appendix 5-B (Three-Year Normal School Teaching Scheme), Appendix 5-C (Typical Teaching Plan of Normal Schools in Jiangsu Province), and Appendix 5-D (Plan of Teaching and Learning Activities Formulated by Nantong Normal School in Jiangsu Province).

The structure of curriculum refers to the modes of instruction of various categories of subjects, and to their internal relationships. The curriculum of normal schools in China comprises the following four categories of subjects: (1) obligatory, or required, subjects; (2) elective subjects; (3) activity-oriented subjects (a number of the activity-oriented subjects cater mainly to extracurricular activities; others cater mainly to activities centered around teaching practicum); and (4) practice-oriented subjects. Internal relationships include a proper combination of obligatory and elective subjects and a proper combination of academic subjects—including both obligatory and elective subjects on the one hand and activity-oriented subjects on the other. Within this framework, the obligatory subjects represent the core, because they provide student teachers with the major means of receiving a well-balanced initial teacher training, and because they are the basic guarantee of the quality of primary teacher training. At the same time, obligatory subjects should be taught in such a way that they play an exemplary role in the teaching of other subjects, serving as a guide to their orientation. The other three categories of subjects function in relation to the obligatory subjects in a way analogous to the relation that exists between a wheel's spokes and its axle—that is, extending or radiating outward as a natural outgrowth of the core. The activity-oriented subjects and the practice-oriented subjects both have their own irreplaceable functions and, together with the obligatory subjects, provide preservice training to student teachers (see Table 5.9, constructed with a view to giving a clearer description of the structure of our normal school curriculum).

TABLE 5.9
Three-Year Normal School Teaching Scheme (TYNSTS) Courses, by Content and Function

Courses and Content	Function	Remarks
OBLIGATORY SUBJECTS Basic academic subjects Professional subjects Physical ed. and arts subjects Labor and technology	They constitute the main body of the teaching and learning activities in normal schools, providing all-around general education and preservice training of primary teachers. The main instruments used in realizing the state's basic requirements for primary teacher training.	The list of required courses, essential requirements in teaching, sequential order, and suggested range of teaching hours are all regulated by the state. Local educational authorities design the curriclum used in local normal schools in accordance with the above-mentioned regulations, and in the light of local conditions.
ELECTIVE SUBJECTS Knowledge-based electives Skills-based electives Electives on teaching materials and methods Other electives	They constitute a supplement to and an extension of the obligatory subjects, conceived with a view to reinforcing the interpenetration and integration of different subjects and widening the student's scope of knowledge, and developing their interests and aptitudes, as well as fostering their competencies in teaching.	The scope of electives, essential requirements in teaching, and suggested range of teaching hours are all regulated by the state. Local authorities decide on the list of electives to be offered, their sequential order, and teaching hours, in the light of local conditions.
EXTRACURRICULAR ACTIVITIES Lectures on specific topics Academic activities Athletic and recreational activities Social activities Other activities	They constitute an integral part of teaching in normal schools, being instrumental in promoting the development of students' personality, and fostering a variety of useful skills and competencies, especially the ability of self-education and self-management.	Essential requirements and guidelines are laid down by the state, and local authorities decide on the list of activities to be conducted, their content, time scheduled, and possible modes of execution.
EDUCATIONAL PRACTICE Visits to schools Educational surveys or investigations Observation of classroom teaching of experienced teachers Educational practice Consultancy services	They constitute an important part of the preservice education of primary teachers, conceived with a view to promoting the integration of theory and practice, creating opportunities for student-teachers to apply their knowledge, skills, and competencies in various settings, being indispensable in fostering the practical ability of students in coping with education and teaching in primary schools.	Content of activities, modes of execution, essential requirements, and guidelines are laid down by the state. The total duration of educational practice and their distribution in the three years are also given for reference. Local authorities decide on the specific programs to be conducted.

The implementation of the TYNSTS in the past few years has provided ample proof of the ability of this curriculum structure to raise the quality of normal school education, and of the positive role it has played in the preparation of well-rounded primary teachers. These characteristics are evident in the correct handling of some fundamental relationships.

Relationship Between Academic or General Educational Subjects and Professional Subjects

Beginning with the aims and objectives of primary teacher training, and in the light of the basis of such training, the curriculum structure must fulfill a dual role, that is, meeting the needs both for an adequate basis of general education and for preservice teacher training. Therefore, undoubtedly, the subjects provided must include both academic or general educational subjects and professional subjects. In view of the fact that the educational preparation of new entrants is restricted to the completion of junior secondary school, academic subjects taught in normal schools must have enough breadth and depth to meet the needs of primary school teaching. Accordingly, the TYNSTS stipulates that teaching time allocated to academic subjects should account for at least 60 percent of all obligatory subjects, thus guaranteeing that academic subjects occupy a legitimate place in the curriculum, and enabling these subjects to fulfill their functions. Preservice training of primary teachers, on the other hand, necessitates that professional subjects must also be allocated an amount of teaching time commensurate with their role. As regards the arrangement of these subjects, we deem it advisable to spread them throughout the three years rather than concentrate them at the end of the course. Furthermore, in some institutions, efforts have been made to break down the barrier between academic and professional subjects by reforming the teaching of the former and requiring a reinforcement of training in basic skills, which are indispensable for a primary teacher. Thus, the proper handling of the relationships between academic and professional subjects enables both categories to fulfill their preservice training functions.

Relationship Between Disciplinary Subjects and Integrated Subjects

In our curriculum design, due consideration must be given to the following factors. Fulfillment of the duty of a primary teacher necessitates a solid foundation of general education based on a systematic and coherent sequence of subjects. In view of the current qualifications of most normal school teachers, a disciplinary approach is more appropriate for most subjects taught, and the TYNSTS has decided to adopt the disciplinary approach for most subjects. However, within the short span of three years, it is neither advisable nor desirable to offer all subjects along disciplinary lines, and a clear demarcation between academic and professional subjects would require more time than is available; it also tends to overburden students. To adopt a strictly disciplinary approach in curriculum design not only contradicts the worldwide trend of adopting an integrated approach, but also ignores the realities of primary education, in which a number of subjects are integrated. The TYNSTS provides room for the development of integrated courses among the electives and extracurricular activities (e.g., a topical series of lectures), particularly by extending a relatively large degree of freedom in offering integrated courses in light of local economic and cultural development, and in response to specific needs arising from the requisites of primary education, and through a proper reduction in the number of obligatory subjects. Thus, in China, although the development of integrated courses is still in an early stage, a new path has been opened for curriculum reform in normal schools in the context of a framework in which the disciplinary approach is dominant, although supplemented by a few integrated courses.

Relationship Between Subjects (Courses) Explicitly Provided by the Curriculum and Curriculum-Related Extracurricular Activities

Classroom teaching is still the main form of teaching. Teaching obligatory subjects and electives is mainly based on classroom teaching, and these courses remain the main educational provision for preservice training of primary teachers for graduation requirements. But curriculum in a broader sense should not be limited to those courses explicitly provided by the curriculum. It should be noted that a number of extracurricular activities in normal schools have, or may be required to establish, close relations to formal courses offered. These extracurricular activities have particular significance in the context of normal school operation. First, primary schools should be staffed not only with basically qualified teachers, but also with teachers equipped with special skills at which they are proficient. Although formal courses should be instrumental in uncovering and developing potential ability or aptitude in individual students, only rich extracurricular activities can help to adequately develop their potential. Looking at this issue from the perspective of the full development of personality, all kinds of school education, including that provided by normal schools, should strive to realize the full development of students' personality. The TYNSTS not only affirms the significance of extracurricular activities in promoting students' learning in academic subjects, and in developing their competence and individuality (confirming their role in activity-oriented subjects), but also stipulates their content, organizational forms, and schedules, and allocates a definite proportion of time to these activities, so that they may become an integral part of the "whole" curriculum, and complement the functions of the more formal courses, which also confirms their irreplaceable function.

Relationship Between Knowledge-transmitting, or Imparting, Subjects and Practice-Oriented Subjects

To be a qualified primary teacher, one must be equipped with a certain amount of general cultural knowledge and specialized knowledge, and, in addition, with certain basic skills and competencies in education and teaching. Therefore, the course offerings of normal schools should include basic academic subjects, professional subjects with a theoretical bias, and practice-oriented subjects aimed at fostering the competencies needed in education and teaching through application of theoretical knowledge in real-life situations, and in other practical activities. Thus, the TYNSTS has adopted a two-pronged strategy. On the one hand, it seeks to ensure that academic subjects and professional subjects constitute the core of the curriculum and occupy a rational proportion of teaching time; on the other hand, it emphasizes the required strengthening by these courses of training in basic skills and fostering of competencies, especially the mastery of Putonghua (or "commonspeech") skills of oral communication. Putonghua is prescribed by law as the standard in language for modern Han Chinese, both in terms of pronunciation and in grammar. It is compulsory for teachers to use Putonghua in their classroom teaching, while bilingual teaching is encouraged in minority schools (Han Chinese and Putonghua are essentially the same language). Training is also geared to competency in writing with brushes, pens, and chalk; to developing social skills, habits of and skill in independent study, and so forth, while stressing the practicality and manipulability of knowledge and skills learned. At the same time, the TYNSTS confirms the special place and role played by educational and social practice, allocating altogether 13 weeks for these purposes (including 10 weeks of teaching practicum and 3 weeks kept in reserve for various kinds of social or collective activities), accounting for 11 percent of the effective teaching and learning time available in the three-year course. It is also stipulated that, in scheduling these activities, effort should be made to arrange time allocated to educational practice so that it keeps pace with the progress of academic and professional subjects, and is also spread out over the three years of the course in order to integrate knowledge-imparting with practice-oriented courses and create a curriculum structure in which these two categories interpenetrate and complement one another.

Outstanding Issues for the Improvement of the Three-year Normal School Teaching Scheme

Primary teacher training provided by normal schools has had a history of more than 90 years in China. Yet, only a few years have elapsed since the TYNSTS was promulgated and implemented in 1989. Although the experience of the past few years does indicate that this scheme is better than previous ones, and that it has played a positive role in raising the quality of normal school education, there are a number of outstanding issues to be tackled so that this curriculum structure may be further improved in the course of practice.

Giving full scope to the role of subject categories with obligatory subjects as the mainstay: One of the underlying ideas of the new curriculum structure is that all subject categories will fulfill their functions in the light of the aims and objectives of normal schools, and show synergistic and holistic effects. In the new curriculum structure, obligatory subjects are expected to play a leading role in raising the quality of training. The basic requirements of normal school education can be ensured only if obligatory courses are effectively transmitted and comprehended, with concomitant reforms in content and methods of teaching. At the same time, the other three categories of subjects have their own proper and irreplaceable functions. The quality of training will be adversely affected if they are neglected or weakened. However, in China's formerly dominant pattern of curriculum structure, all course offerings were obligatory, with no place for the electives, and this legacy has had undesirable effects on the leadership and on the teachers in some normal schools where electives and activity- and practice-oriented subjects are not being given due attention, or where they may be formally offered but without any conscientious effort to give full scope to their roles. There are also instances in which the effort being made to break the yoke of traditional patterns of teaching has meant that too much attention is being given to the development of electives, extracurricular activities, and practice-oriented activities, with the result that the teaching, and reform, of obligatory courses is neglected. These deviations are partly due to ideological reasons and partly to the lack of experience. At the same time, it must be pointed out that effective mechanisms have not yet been developed to ensure that the curriculum structure is really operative. Although the TYNSTS contains provisions concerning the functions, roles, basic requirements, and allocation of teaching time for each of the four categories of subjects, a mechanism of checks and balances is lacking. This is an outstanding issue that must be explored so that feasible solutions may be found that contribute to effective functioning of all categories of subjects and to an optimal realization, in a balanced manner, of the aims and objectives of normal schools.

Ensuring that all subject categories blend harmoniously and function as an organic whole: The new curriculum structure has broken the old pattern of providing obligatory courses only and clarified the relationship between various categories of subjects, providing a theoretical framework for making them function as an organic whole as well as guidelines for the implementation of the curriculum in operational terms. However, since there are no basic regulations concerning the sequence of closely related parts of different subjects and the number of teaching hours devoted to their instruction, administrators of normal schools are given ample freedom to make their own arrangements, as they see fit, concerning the curriculum. This autonomy may also be misused, giving rise to arbitrary decisions concerning the provision of electives and activity- and practice-oriented courses. It is desirable, therefore, in the interests of ensuring that all subject categories function as an organic whole, to correctly assess both positive and negative experiences in order to draw the correct conclusions and to formulate useful guidelines for the optimization of the curriculum.

Ensuring a scientific and sound system of curriculum evaluation through the imperative of reform of teaching management: Because the traditional curriculum pattern of exclusively obligatory subjects has been replaced by a new structure, there should be corresponding modifications in the management of teaching. As far as the management of curriculum design is concerned, changes in the structure of curriculum necessitate changes in its practice. The scope of routine management of course offerings must be extended from covering obligatory courses only to covering four categories of courses. As regards the evaluation of the quality of teaching in normal schools, modifications must be made to cope with the new situation by developing a new evaluation system covering the assessment of students' progress in the acquisition of knowledge and skills, and of their performance in teaching, so that the process of teaching all subject categories, as well as the final outcome of normal school education as a whole, can undergo scientific evaluation. A well-conceived and effective system of evaluation is conducive to the comprehensive and effective implementation of the new curriculum.

Furthermore, the implementation of the new curriculum structure poses new requirements for the improvement of the physical facilities of normal schools and for the development of qualified staff. It should be noted that during the past decade, normal schools have been given high priority in the allocation of resources—financial, human, and material—by government at various levels. Consequently, there have been significant improvements in physical facilities and staffing during recent years. In spite of the progress made, however, we must admit that so far, the input of new resources has been used mainly to meet the requirements of obligatory subjects, leaving the needs of the newly offered electives largely ignored—especially the courses offered in response to local needs. There are few qualified teachers to undertake the new tasks. Therefore, it is imperative to increase financial input for the development of normal schools. Much work remains to be done to create conditions for the provision of four categories of courses, and this includes provision of better facilities and of more qualified teachers. The shortage of qualified teachers is even more difficult to overcome than is the lack of facilities.

The adoption of a new curriculum structure for our normal schools has opened a new path for deepening curriculum reform, and has provided a strong impetus for raising the quality of instruction in normal schools. The implementation of the new curriculum structure is a systems engineering project, and we will spare no effort in furthering curriculum reform—in the areas of content, structure, correct interrelationships among subject categories, management of course offerings, and quality evaluation—so that a curricular pattern befitting Chinese normal schools may gradually take shape.

IMPLEMENTATION OF CONTINUING EDUCATION AND IMPROVEMENT OF THE QUALITY OF PRIMARY AND SECONDARY SCHOOL TEACHERS

The rapid development of the worldwide technological revolution will bring with it a more internationalized and informed society in the 21st century. It has become the strategic task of our country at the end of this century, and the beginning of the next, to establish a socialist market economy system, to speed up reform, the opening up to the outside world and modern construction, and to further liberate and develop productive forces so as to improve our national economy and our overall national strength to a higher degree. The successful fulfillment of this task depends not only on the production of a large number of senior special technical and administrative talents, but also on the high level of training of a new type of productive force that is knowledgeable, capable, and proficient at thinking creatively. These are the reasons why, after the implementation of nine-year compulsory basic education, we have put forward new, overall goals for education. These goals are to significantly improve the educational level of the entire nation; to further develop pre- and postvocational education of both urban and rural laborers in order to foster a quantity of special talents of various types; to establish a mature and ideal socialist educational system; and to realize socialist modernizations after several decades of efforts.

To implement these strategic tasks, we are conducting an overall reform of the educational structure and system. As far as the reform of teaching materials for primary and secondary school is concerned, the State Education Commission has initiated a plan for producing talents of different types and at different levels, based on the need for the construction of both a material and a spiritual civilization. We are also breaking through the conventions of traditional teaching materials by introducing reforms based on successful experiences both inside and outside China, and attempting to make the transition from traditional to modern education a smooth one by giving priority to the reform of educational ideas, concepts, and contents and shifting the emphasis on examination-oriented learning to learning based on the improvement of the quality of the nation as a whole.

In order to satisfy the needs of modern education and of society in the coming decades, we need to produce new types of qualified teaching contingents. That is the reason we have decided henceforth to conduct continuing education for teachers in possession of state-issued qualifications.

The continuing education program consists of the following types of training:

- In-service training: for teachers in the present service and for those who will be promoted to a higher level
- Training for "key" teachers: targeted at promising middle-aged teachers and those pioneering teachers who excel in their own subject, and at teachers who wish to pursue more advanced degrees
- Training for new teachers in field practice: to enable new teachers to adapt to the teaching

work; includes training for theory of teaching and methodology

The task of continuing education for secondary and primary school teachers is: to improve teachers' level of theory and their teaching abilities and to produce a quantity of "key" and pioneering teachers, some of whom will be trained as specialists in teaching and education, in order to foster secondary and primary school teaching contingents with correct needs and high standards of quality and morality

Under the guidance of the State Education Commission, the municipalities and provinces of Beijing, Shanghai, Tianjin, Liaoning, Jilin, Sichuan, Zhejiang, Hunan, Jiangsu, Heilongjiang, Hubei, and Shandong have conducted research into and initiated the practice of a continuing education program, particularly in terms of policy, contents, approaches, and institutional systems. These efforts have initially paid off.

In Shanghai, for instance, achievements in terms of policy, content, and approaches to teacher training can be characterized by measures stipulated by the municipal government under the Regulations on Training for Secondary and Primary School Teachers, issued in December 1989. These include:

1. Teachers with elementary and intermediate levels of academic qualifications should participate in at least 540 hours of training every five years (in any case, they must participate in no less than 240 hours of training every five years), 300 hours of which are earmarked for research on special topics.
2. Outcomes of training and resulting certificates of qualification will be the basis on which to judge performance in teaching, evaluation of teaching titles, salary increases, and selection for award presentation.
3. Continuing education will consist of five suitable, appropriate, practical, and scientific subjects: (1) training for accomplishment; (2) educational theory; (3) research on teaching practices; (4) training for teaching approaches and skills; and (5) scientific research.
4. Responsibilities, requirements, and standards for teachers' colleges, training centers, and advanced schools for teachers will be defined.
5. Responsibilities and requirements for secondary and primary school administrators at different levels will be defined.
6. Rules and regulations for the quality and scientific administration of training will be defined.
7. Special funds for secondary and primary schools will be provided.

Contents of the Continuing Education Program

Rules for Designing Curriculum

Based on scientific principles, the curriculum guide should be based on educational philosophy and theories, psychology, pedagogy, and sociology. The curriculum should also meet the needs of in-service teachers at different levels, as well as those who are at the same level but who have different needs. In Shanghai, for example, the curriculum guide has been designed with the following considerations in mind:

1. Teachers who, because of specific needs, are shifted from their own subjects to the teaching of others, or of several other subjects, are required to have the capacity to teach multiple subjects.
2. To satisfy the need of producing teaching contingents in echelon formation, backbone teachers must receive further training. Some teachers should be promoted to higher posts, and trained to the requirements of higher levels.
3. The need for secondary and primary school teaching material reform requires updating educational theory, approaches and skills, and teachers' professional knowledge.
4. Due to a number of historical and social reasons, some teachers are in possession of academic titles but without the practical abilities to match them.
5. Based on the characteristics of teaching work and the need for educational development, continuing education programs should include new contents and an emphasis on the development of practical teaching and research ability, while at the same time recognizing the need for research on knowledge structure through consideration of past experiences, future possibilities, and present needs. These are the reasons why, on the basis of the present situation in education, teaching contingents, and individual teachers, the development of teaching materials is geared to the needs of secondary and primary school teachers, absorbing fresh ideas from educational development and reform.
6. Training curricula should be implemented on a regular basis that is systematic, scientific, practical, and able to stand the test of time.

The Characteristics of the Curriculum

The curriculum for the continuing education program has the following characteristics.

Synthetic qualities: Continuing education is life-long education for teachers, integrating moral education into the capabilities of teaching and research. Training for accomplishments, educational theory, teaching for professional knowledge and skills, and educational research are the four different subjects that represent different but, on the whole, interrelated aspects of education.

Diversification: The development of the curriculum is aimed not only at the improvement of society and the achievements of educational and scientific research, but also at different interests, attitudes, capabilities, and personalities inherent in different teachers. Therefore, diversified subjects are made available for teachers' choice.

Problem-solving: In-service training is practice-oriented. On the basis of the problems existing in society and in education, we carefully identify the experiences, relevant problems, theories, and results of teaching that are integrated into the curriculum, and present them to teachers as a way of problem-solving. Courses in the curriculum include, for instance, Psychological Research on Secondary and Primary School Students, Formation and Development of Children's Morality, Difficult Problems in Teaching Materials, and Research on Illegal and Criminal Offenses of Secondary School Students. These courses are closely related with teaching and there is no mistaking what the curriculum is aimed at. By using a scientific approach, they also enable teachers to summarize experiences, discuss questions, and develop creative and cognitive abilities.

Microteaching: This was introduced to teacher training colleges and normal schools in China in the mid-1980s, as a scaled-down practice teaching situation in which the teacher can concentrate on one specific training skill and receive a great deal of feedback on his or her performance. Microteaching is now used widely as a component of teacher education and training programs. Continuing education in Shanghai includes 30–60 hours of microteaching exercises as a practice setting for teachers to improve their teaching.

New curricula: New courses originate in the context of successful and informed international experience that matches the objectives and characteristics of the continuing education program. Courses in the curriculum include Information Technology, Problems in Present International Relationships, Comparative Research on Education Inside and Outside China, Population Research, and Environmental Education. These subjects are both systematically theoretical and practically operative in social investigations and in educational practice.

Developing curricula: The contents of the curriculum are developed in an upward spiral, in accordance with the needs of teachers at different levels. The contents of individual subjects will also be developed—in accordance with changes in teaching and improvement of teachers—with a view to higher levels of understanding and greater scientific and social values.

Flexibility: In accordance with the characteristics of continuing education, and the increasing future requirements for teachers, the curriculum of continuing education in Shanghai consists of two categories: regularized training courses that encompass all the above-mentioned characteristics and irregularized training courses that are very flexible. These last include the following special attributes:

1. Individual achievements in educational reform and research in local areas will be used as special subjects in continuing education and will be, on the one hand, subjected to scholarly and theoretical evaluation to improve the quality of educational research and, on the other hand, disseminated into educational practice in order to deepen educational reform. The conception of the process is that as individual, local efforts begin to result in an ideal standard of achievement, they will be accordingly documented and the documentation will be integrated into the regular curriculum of continuing education for teachers everywhere in the municipality. Course names for documented success stories like these might be, for example, Education for Happiness in No. 1 Primary School Affiliated to No. 1 Normal School; Education for Success in Zhabei No. 8 Secondary School; or Gu Lengyuan's Experiences in Educational Reform in Qingpu Secondary School.
2. The availability of Emergency Training for the dissemination of new teaching materials. Emergency Training usually focuses on some new teaching skills or knowledge that teachers may feel is difficult to deal with. Teachers are required to go to special classes to receive short-term training, which normally takes three to ten days. This includes training for how to use teaching materials, how to teach selective courses, and how to organize activities in classes.
3. Training of "key" teachers, based on specific characteristics of different regions and on their specific requirements for training. This type of training includes a master-degree course with a major in educational theory and approaches; workshops on specific topics, with an emphasis on subjects relevant to those topics; a tutoring system utilizing highly qualified and proficient, experienced teachers as supervisors; and long-term follow-up training.
4. Availability of material supplementary to standard teaching materials in the regularized training courses, adapted to the different characteristics of trainees and to different regions in order to better accommodate individual needs.

Training Approaches

The principles involved in developing training approaches are:

1. *Educative:* It is an obligation for training agencies to initiate trainees' interest in learning and to enable them to see the need for improvement by creating a satisfactory and stimulating environment for training. It is also an obligation to help trainees develop correct attitudes toward training, such as always reaching for the ideal, actively participating in training, and working diligently.
2. *Democratic:* Training agencies must create free and democratic environments for trainers and trainees alike; initiate trainees into free exchanges; and create new ideas among themselves. In communications between trainers and trainees, problems should be openly aired and then analyzed, synthesized, and, finally, solved.
3. *Voluntary:* Training agencies must emphasize voluntary learning. In the course of training, trainees' abilities to teach themselves, to observe, to think, and to operate, can be strengthened by allowing them to experience the whole process of knowledge-seeking, so that they will become more creative—forming educational ideas and concepts of their own—and also more confident. Trainees must also be allowed to fully express and reveal themselves, in a variety of ways and under different circumstances, in order for them to satisfy their need for self-respect and achievement, and to be fully initiated into their learning.
4. *Comprehensive:* Trainers should be proficient at combining all the relevant factors in the training program that are beneficial to the development of trainees' abilities and awareness, with the aim of helping trainees reach their full potential. Training should also be combined with research work, to more actively involve both the intelligence and the creative abilities of trainees. Rather than providing training in teaching skills only, they will thus be equipped with a depth of knowledge on scientific theory, applicable to the various situations in education and teaching to which they will be exposed. In addition, training agencies should make full use of all facilities for integrated education, such as libraries and other sources of literature, audiovisual centers, and different kinds of labs. Finally, trainers should attempt to integrate research results with training in various ways, in order to encourage trainees to go beyond the limits of their respective specializations. The integration of new and relevant knowledge with their own specialization will promote higher quality training and also stimulate trainees to use their initiative, to gain enthusiasm for learning, to enrich their knowledge, and to strengthen their skills at adapting to diverse situations.
5. *Practical:* Trainers should encourage trainees, through the use of pedagogical theories and of psychology, to practice curriculum guidance and educational reform on a trial basis. They should also be encouraged to create new teaching approaches that can be used flexibly in practice. The combination of theory and practice is the ideal result of training. Operational skills that help trainees to improve their teaching, and enable them to develop their own teaching aids, should also be encouraged. Trainees should, in addition, receive instructions on how to conduct outside class activities for their students. It is difficult for many trainees to break teaching habits and to change conventional ideas that have become embedded during the past. New practice and training will enable them to construct beneficial comparisons and to make synthetic analyses. Trainees should also be provided with opportunities for scientific research on education in combination with their training, which can further the objectives and the quality of training. Finally, educational practice should be conducted under realistic circumstances.

Advanced Classes for Research

These classes are aimed at key teachers. In Shanghai, for example, training approaches are divided as follows: 240 hours for training on systematic theories, and 300 hours for research on specific topics, some of which are put forward by the trainers themselves, with the remainder either identified by researchers or constituting topics for scientific research. Trainees carry out research either in groups or individually, combining theories they have learned in the course of their teaching practice. Each group or individual has a supervisor for theoretical guidance. In the case of master-degree courses on pedagogical theory and teaching approaches, for example, students will be guided for topic research or essay writing by senior-level teachers or by tutors identified from higher institutions, colleges for advanced study, secondary schools, or the departments of educational administration. These persons are highly experienced and highly qualified in both the theory and practice of education. One popular method of key teacher training, known as "Three Periods of Training," encompasses the following: theoretical learning, teaching practice, and topic research. Of these three "periods," the last two are conducted under the guidance of tutors—one-on-one, with one tutor for several students, or with several tutors for several students. After a period in which students attend classes and write essays that are evaluated by their senior-level teacher or tutor, there follows a period of practice and research. After several cycles like this of classroom work, practice, and research, the trainees will have made a leap forward both in theory and in practice, also making rapid progress in their development. Advanced Research Classes have the following characteristics:

- Clear standards for training, systematic guidelines, topic research with particular values, ease of communication between trainers and trainees, and mutual benefits for teaching and learning. With the tutors' assistance, the students, primarily through teaching themselves, can sort out, analyze, and digest what they have learned, which then helps them to foresee the need for and to create new ideas on education in the future, using correct concepts of science and correct values.
- The training is combined with research on teaching and education. Learning and research are conducted simultaneously and are guided by theory. The research deepens the theory, produces key teachers, and greatly promotes reform and the quality of teaching and education in secondary and primary schools.

The above are examples of the approaches used in continuing teacher education that emphasize discussion, use of questionnaires, and investigation supervised by trainers acting as organizers for communications. This type of training helps trainers and trainees gain valuable experiences in the following ways:

1. It reveals the rules by systematizing and regularizing the knowledge of trainees, and raises their experiences to the level of theory.
2. It emphasizes exemplary roles, which include the trainer's exemplary role in maintaining a meticulous attitude toward scholarship, profound knowledge, and creative ability. Also included is the exemplary role of links and approaches to teaching and learning.
3. It strengthens training for thinking. In building strong capabilities, rich imaginations, and the ability to think abstractly, trainees are guided to discover the rules themselves, and are trained to draw inferences from various cases. Training in proficiency at making comparisons encourages them to deepen their thinking and their understanding of the world. By fostering trainees' analytical ability (creating puzzles and problems for the trainees to solve), trainers guide them to become involved in active thinking.
4. The trainers have an overall understanding of the trainees and divide them into different groups for discussions, based on their different personalities.
5. The trainers make a careful curriculum guide and stimulate trainees to take the initiative on research questions by using various teaching aids and teaching media.
6. The trainers make significant efforts to stimulate and encourage trainees' creativity.

Cooperative Teaching

In addition to full-time trainers, the continuing education program also involves audiovisual personnel, librarians, highly qualified secondary and primary school teachers, and specialists from higher institutions in its courses. These part-time trainers participate in cooperative teaching with their full-time trainer colleagues, based on course and training requirements. Another facet of cooperative teaching involves trainees themselves in teaching classes on special topics. This experience enables them, on the one hand, to give full play to their special knowledge and talents and, on the other hand, to stimulate communication, cooperation, and mutual understanding with their trainers.

Practical Classroom Teaching Experience

Following their research and training activities, trainees are invited to observe, evaluate, and participate in teaching activities in classrooms where the teaching is conducted either by the trainers or by the trainees. Emphasis is placed on the most common problems faced by trainees, so that the objectives and aims of teaching become clearer and more operative. In Shanghai, for example, teacher training in continuing education has involved many classroom hours of this type. Practical classroom experience has become one of the most important training approaches there, and its effects have been significant. For example, one trainer who teaches the course, Aesthetics Education in Chinese Language Teaching and Initial Research on Psychology in Composition Writing asked his trainees to give demonstration classes in a secondary school and then to make a theoretical analysis and evaluation of them, according to what they have learned. In another example, three trainers who teach, respectively, Logic in Maths, Mathematics Methodology, and Psychology in Maths jointly designed a class and made an analysis of it from different points of view. It is the common understanding of trainers like these that practices of this type represent a high level of teaching and learning activities, and a level never experienced before, which not only consolidates trainees' knowledge but also promotes the work of teaching and research in secondary and primary schools.

Audiovisual Lessons

Long-distance or correspondence education has become one of the forms of continuing education, and audiovisual aids play a part in transmitting training. In addition, microteaching is often employed in training new and younger teachers. In this case, a segment of a trainer's teaching is shot with a video camera, and comparisons and analysis are conducted with them. These types of activities also help trainers to quickly improve their teaching skills. Continuing education programs also utilize audiovisual aids in classroom teaching. These aids break through the limit of time and space in classroom teaching, enabling trainees to receive more information and to gain a greater effect from training.

Conclusions

Under the leadership of the State Education Commission, and based on local conditions, all provinces and municipalities concerned have respectively worked out near-, medium-, and long-term programs of their own for continuing education, and integrated them into the long-term and annual education plans of local regions. These programs refer not only to schools but to school personnel as well. Administrative files for continuing education have been established. In accordance with the characteristics of teachers, and of their work in different areas, continuing education will be conducted in a variety of ways, including group training, one-on-one instruction, correspondence education, and self-teaching. To combine this training with secondary and primary school teacher training, we have taken the following definitive measures:

1. To establish networks at four different levels: provincial, municipal, county, and the level of secondary and primary schools themselves. Secondary and primary schools act as training sites for teachers.
2. The trainers in teachers' colleges for advanced studies are composed of full-time and part-time teachers. Most of the part-time teachers are those who are highly qualified and highly recommended from their secondary and primary schools.
3. To establish a system whereby trainees from colleges conduct investigation, research, and teaching in secondary and primary schools, with the aim of enriching the training in their colleges of origin through these experiences.
4. To closely combine training with teaching and research in secondary and primary schools. These two can be mutually beneficial.

Appendix 5-A

AN OVERVIEW OF EDUCATIONAL REFORM CONDUCTED IN SHORT-CYCLE TEACHERS COLLEGES IN FUJIAN PROVINCE

In accordance with the Ten-Year Plan for Implementing Compulsory Education at the junior secondary level (grades 7–9), total enrollment in junior secondary schools will reach its peak in the years 1996–1997. To meet the demand for junior secondary teachers, total enrollment in Fujian's short-cycle teachers colleges will reach 11,000 by 1995. A large proportion of the province's population is concentrated in the coastal areas, giving rise to a large gap between the supply and demand of junior secondary teachers, owing to the smaller capacity of the Short-Cycle Teachers Colleges (SCTCs) located in these areas. In view of this fact, during the Eighth Five-year Plan period (1991–1995), the provincial government intends to solve this problem by keeping the distribution of tertiary teacher training institutions (including SCTCs and four-year teachers colleges) basically unchanged, properly expanding the capacity (total enrollment) of existing SCTCs and their service areas, and channeling part of the graduates from SCTCs located in mountainous areas to coastal areas, so as to make teacher training more cost-effective. At the same time, reforms will be carried out in the areas examined in the following sections.

Qualifications of Graduates Examined and Readjusted

Teacher training conducted by SCTCs is characterized by the following features: (1) It pertains to short-cycle higher education and (2) it serves local junior secondary schools. The main task of SCTCs is the preparation of junior secondary teachers and it directly serves the needs of the implementation of nine-year compulsory schooling. The aims and objectives of SCTCs are embodied in the clearly defined qualifications of its graduates. In order to do a good job of teacher training in the SCTCs, it is imperative first of all to properly define the training objectives and qualifications of SCTC graduates in the light of the needs of developing junior secondary education and of the actual needs of teachers' jobs. It must be pointed out that the moral integrity of teachers and their exemplary role can never be overemphasized.

As a preliminary step to overhauling and readjusting the current qualifications of the graduates of SCTCs, we have made inquiries into the work and performance of a large number of SCTC graduates by follow-up studies conducted during the past few years. Our findings indicate that the preparation of teachers should not be focused on academic qualifications only, and it is highly desirable to train multipurpose teachers who are willing to stay in the countryside, and who are able to teach academic subjects and to assume the duty of head-teacher of a class, as well as to teach some courses on manual labor and technology—that is, a composite-type teacher should be trained instead of the tradition-type teacher who can only teach academic subjects. In order to realize these goals, we have started a pilot project in Nanping Short-Cycle Teacher College, located in the northern part of Fujian Province. Our studies will be conducted over a period of three years, extending from August 1993 to September 1996, and we have the following goals in mind.

Theoretically, we would like to explore proper ways to adjust the orientation of SCTCs in northern Fujian in the context of developing a socialist market economy by focusing on the preparation of qualified junior secondary teachers, so that we may provide a sound basis for policy making in the field of staff development in rural junior secondary schools, as well as in the SCTCs themselves.

As regards the educational practices prevailing in SCTCs, we would like to see that our studies on the proper qualifications of SCTC graduates could yield useful results that would help deepen educational reform and teaching in SCTCs by formulating a new set of criteria on qualifications and a new knowledge structure adapted to the needs of future junior secondary teachers. Our studies also deal with ways to speed up the preparation of junior secondary teachers. It is expected that our findings may help produce a valid pattern for running all SCTCs in Fujian Province, and a set of qualification standards for all programs (specializations) provided in SCTCs.

According to our research plan, the following research reports on specific themes will be produced: (1) a report on the demand for junior secondary teachers in northern Fujian and an analysis of the quality of SCTC graduates; (2) a proposal on the training qualifications of SCTCs in the northern mountainous areas of Fujian and guidelines on curriculum design; (3) suggestions on course offerings in Nanping Short-Cycle Teachers College, and ways of implementing educational programs combining obligatory and elective courses and combining a major and a minor; and (4) a general report on studies of training qualifications in SCTCs in northern Fujian.

Improvements of the Structure of Educational Programs Provided in SCTCs

Currently, there are 12 subject areas, with 81 programs, provided at short-cycle level in all tertiary teacher training institutions (mainly SCTCs), of which 11 are three-year programs and 70 are two-year programs. There are some inconsistencies in the distribution of these programs, giving rise to imbalances in the supply and demand of graduates, with oversupply in some programs and shortages in the others. The current situation is this: English teachers are in extreme shortage, followed by teachers of Chinese and music and fine arts (especially in rural schools); the supply and demand of teachers of mathematics, biology, and geography are basically balanced; teachers of political education and history are a little in oversupply; and teachers of chemistry are seriously oversupplied, followed by teachers of physics and physical education. These problems have arisen partly out of our inadequate awareness of the importance of supplying rural junior secondary schools with teachers capable of teaching in a major subject area as well as in several minor areas, in response to the needs of local economic development, and partly out of our insufficient efforts in this direction.

During the current period of the Eighth Five-Year Plan, we will endeavor to close the gap between supply and demand of graduates by readjusting our recruitment plan in accordance with future demand, by further improving the distribution of educational programs, and by improving the structure of subject areas and the duration of study, so that we may be able to prepare a quantitatively adequate and qualitatively improved supply of SCTC graduates to meet the needs of new teachers in the peak years (1996–1997) of development of junior secondary education. Specifically, the following measures are to be taken:

1. Chinese, Mathematics, and English are the three main subjects taught in junior secondary schools, and there are now 29 programs for them in the whole province, with an annual intake of new entrants of over 2,800. Their duration of study will be kept unchanged at two years for the time being.
2. There are eight SCTCs, all providing two-year programs of political education and history. We plan to merge them into an integrated program of political education and history and to prolong the duration of study from two to three years, and to cancel five single-subject programs. The annual intake of new entrants will be kept at about 800.
3. There are eight SCTCs, all providing separate programs for biology and chemistry. We intend to merge them into an integrated program of biology and chemistry, and prolong the duration of study to three years. Thus, the number of programs will be reduced by four, and the annual intake of new entrants will be kept at about 400.
4. The program of physical education in Longyan Short-Cycle Teachers College and the program of chemistry in Fujian Short-Cycle Teachers College will be canceled. The annual intake of new entrants for each of these subjects will be kept at about 200 for the whole province.
5. In all SCTCs offering separate two-year programs of physics and chemistry, new integrated programs combining one major and one minor will take their place, with concomitant lengthening of the duration of study to three years.
6. In view of the fact that there is a large demand for arts teachers by junior secondary schools, and that the training of music and fine arts teachers is time-consuming and painstaking, we have already prolonged the duration of study of the music and fine arts programs provided by Jimei Short-Cycle Teachers College to three years and increased the annual intake of new entrants of these two programs to over 120. At the same time, teacher training classes for training teachers of music and fine arts have been instituted in other specialized colleges of arts.

Thus, through a process of readjustment of the structural pattern of educational programs provided by SCTCs, the total number of SCTC-level programs will be 70 (18 three-year programs and 52 two-year programs), which is a reduction of 11 compared with the old pattern, resulting in a more rational distribution of programs. By 1995, the total intake of SCTC new entrants will reach 5,500. We expect that the new arrangement will be better adapted to the needs of junior secondary teachers arising from the rapid expansion of junior secondary education, both quantitatively and qualitatively.

Reform of Curricular Content and Teaching Methods

After the readjustment of the structural pattern of the educational programs, a new round of curriculum development is now in progress, involving revisions of teaching plans and syllabuses, and rewriting of textbooks. As a preliminary step, teachers of the relevant programs (specializations) are asked to make in-depth study of the demands on the quantity and quality of junior secondary teachers set forth by the service areas concerned. In the case that a new program involves a major and a minor, effort has to be made to gradually develop scientifically sound new curriculum. In the case that a new program involves two subject areas of equal weight (so-called dual-subject program or specialization), it is imperative to enable students enrolled in these programs to be able to teach two subjects on graduation, with knowledge and skills commensurate with SCTC qualifications.

A priority area of reform of curricular content is to increase the relevance of subject matter taught, with proper attention paid to local features. Another area of reform is the provision of electives in the curriculum, helping SCTC students to be better adapted to the needs of economic development in the rural areas. Continued efforts to improve educational practice will be made, with concomitant reform. Mastery of basic skills will be stressed, and, accordingly, new criteria on the standards of handwriting involving the use of brushes, pens, and chalk, and new criteria on the standards of the mastery of Putonghua (commonspeech) will be formulated and enforced. Effort will also be made to enhance abilities in organization and management.

Another area of reform consists of the organization of various kinds of social practice involving extensive participation of students, such as the organization of investigative surveys of basic education, especially the situation of junior secondary education in the countryside, and participating in the educational reform conducted in junior secondary schools.

Teaching Staff Development to Be Strengthened

At present, looking at the teaching staff working in all SCTCs in the province in its entirety, it must be admitted that their qualifications are far from being adequate to satisfy the requirements of the reform and development of tertiary teacher training, and to meet the needs of basic education for supplying junior secondary schools with teachers both socialist-minded and professionally competent. The main issues are as follows:

1. Low percentage of teachers with higher academic standings—among the full-time teachers, only 11 percent are of professorial standing—distributed highly unevenly among different subject areas.
2. Abnormal age structure of the teaching staff; consequently, in some institutions, when the senior staff in certain fields reach retirement age, there may be no younger qualified staff to succeed them. Even now, there are some subject areas that suffer from the lack of qualified core members and leaders of scholarly pursuits.
3. A portion of teachers lack experience in social practice and are not highly motivated in their work.
4. A portion of young teachers do not have a solid foundation in their training, yet do not pay due attention to the study of pedagogical theory and methods of teaching and the improvement of other essential skills. Furthermore, they know very little about the reform and development of basic education and vocational-technical education.

During the period of the Eighth Five-Year Plan, the main goals and tasks of staff development in the Short-Cycle Teachers Colleges are as follows:

1. Great effort should be exerted to enhance the ideological and political consciousness and moral integrity of teachers, to significantly improve their competencies in education and teaching, to develop their ability in conducting research work, and to improve their professional ethics. Teachers 35 years of age and younger are required to undergo job-related training and to take part in social practice.
2. A variety of in-service training activities are to be organized and a network of in-service training of the teaching staff of tertiary teacher training institutions is to be gradually built up and perfected. It has been decided that teachers under 40 years of age should systematically take part in the study of the main graduate-level courses, so that they may reach the level of the completion of master-degree programs. Even the core members of the staff and leaders of scholarly pursuits are required to take part in more advanced forms of training congruent and commensurate with their qualifications.
3. Steps should be taken to gradually raise the proportion of full-time staff with senior standing, up to the level of 20 percent. It is highly desirable to have more full professors under the age of 50, and more associate professors under the age of 40.
4. Consistent effort should be made to raise the proportion of teachers with graduate training and advanced degrees. It is especially important to insist that, among full-time teachers newly recruited, the proportion with advanced degrees should increase year by year.
5. Management of teaching staff is to be gradually institutionalized in accordance with carefully formulated norms and standards. A self-contained system for the management of SCTC teaching staff should be instituted concerning their recruitment, appointment, promotion, evaluation, in-service training, and reward and sanction.

To Reform the Recruitment of New Entrants by Raising the Quality of Potential New Recruits

We deem it feasible and desirable to take the following measures:

1. Prospective students will be recruited chiefly from target service areas in the light of forecasted future needs for junior secondary teachers, and the graduates will accordingly be returned to these areas for job placement. To realize this goal, the plan for student sources will be drawn up accordingly, with planned recruitment figures allocated to counties (districts) pertaining to the service areas of the SCTC in question.
2. Preparatory classes for entry to tertiary teacher training institutions will be set up in part of the "key" secondary schools (those with good reputations in terms of teaching quality), recruiting their students from the graduates of junior secondary schools in minority areas and outlying, insular, and secluded mountainous areas—recruits who are willing to dedicate themselves to the cause of education; graduates of these preparatory classes will be admitted by tertiary teacher training institutions, so that in future, rural secondary schools will be able to employ a certain number of higher quality new teachers.
3. In recruiting students for SCTCs, proper attention will be paid to the appraisal of their aptitude for education and teaching.

(The report in this appendix was prepared by the Division of Teacher Education, Fujian Provincial Commission for Education.)

Appendix 5-B

THREE-YEAR NORMAL SCHOOL TEACHING SCHEME (FOR TRIAL IMPLEMENTATION) PROMULGATED BY THE STATE EDUCATION COMMISSION ON JUNE 21, 1989

Normal schools (secondary teacher training institutions) are specialized secondary schools devoted to the training of primary school teachers.

The three-year normal schools should adhere to the Four Cardinal Principles ("We must keep to the socialist road; we must uphold the dictatorship of the proletariat; we must uphold the leadership of the Communist Party; we must uphold Marxism-Leninism and Mao Zedong thought.") and make positive efforts to cater to the needs of socialist modernization, and they should be able to prepare qualified primary school teachers with the following traits and qualifications: to ardently love the socialist motherland; to ardently love the Communist Party of China; to ardently love the undertaking of primary education, equipped with the rudiments of Marxist tenets and basic viewpoints; to possess good public virtues and teachers' professional ethics, and be willing to work under arduous conditions and to work realistically and innovatively, equipped with the knowledge, skills, and competencies needed in primary school education and teaching; to understand the basic laws governing school education and teaching; to be equipped with some ability of aesthetic appreciation; to possess rudimentary knowledge and skills related to productive labor; to have good habits of personal hygiene; and to be physically fit.

General Principles for Formulating the Three-year Normal School Teaching Scheme

1. The courses (subjects) provided in normal schools, and their content, and other educational and teaching activities conducted by normal schools are regulated in the light of the needs of socialist modernization and the implementation of nine-year compulsory schooling.
2. The principle of combining unity with flexibility is to be adhered to in view of the fact that China is a vast country with large regional disparities in economic and cultural development. The state sets forth unified basic requirements on teaching in normal schools, and the educational departments of provincial (autonomous regional, and municipal) governments are authorized to decide on the curricular content of local normal schools and to draw up corresponding teaching plans in accordance with the basic requirements set forth by the state and in the light of the needs of local economic and cultural development, especially the needs arising from the implementation of nine-year compulsory education.
3. In accordance with the characteristics and regularities of normal school education, teaching should follow the following guidelines: Classroom teaching should assume a central place; proper integration of obligatory courses with electives, of classroom teaching with extracurricular activities, and of school education with social practice should be present; consequently, obligatory courses, electives, extracurricular activities, and social practice, together, should constitute an organic whole of the educational and teaching activities in a normal school.
4. In the light of the requirements for preparing primary school teachers and of the specific features of normal school students, it is imperative to strengthen the work of ideological education in normal schools, and effort should be made to conduct ideological and political education in all kinds of teaching activities, and to foster moral integrity (especially teachers' virtues) and good psychological traits in the students. Teachers are required to play an exemplary role in both moral education and teaching, to educate students to adhere to the Four Cardinal Principles, and to wage struggle against bourgeois liberalization, so that the students may become well-prepared primary teachers, having lofty ideals, moral integrity, a good general education, and a sense of discipline, and be capable of fulfilling a citizen's duties and of having good professional ethics and psychological traits.
5. The arrangement of the academic courses, professional courses, arts and physical education courses, and educational practice should be made in the light of the needs of the preservice education of primary teachers, and be placed on a sound scientific basis. It is imperative to implement the principle of integrating theory with practice, to reinforce all links of practical training, and to pay attention to the formation of skills and competencies, so that the students may acquire solid knowledge of academic sub-

jects and the skills and competencies indispensable for a primary school teacher, especially for teachers working in rural schools.

6. Education and teaching conducted in normal schools should be carried out with due consideration of the traits of the physical and mental development of students, as well as of the individual differences among students. Efforts should be made to foster extensive interests among students and to develop their gifts and aptitudes, so that the students may develop in a way that is lively, vigorous, active, and comprehensive.

Content of the Three-year Normal School Teaching Scheme

The entire course lasts 156 weeks, and the time is distributed as follows: teaching activities, approximately 107 weeks; teaching practicum, approximately 10 weeks; summer and winter vacations, approximately 36 weeks; reserve time used for social activities and other collective activities, with an educational implication, approximately 3 weeks. Both obligatory and elective courses are offered in normal schools.

Course Offerings—Obligatory Courses

Obligatory courses constitute the main body of the teaching activities of normal schools, being the main channels for providing the moral, intellectual, and physical education of students, and for conducting the pre-service training of primary teachers.

The obligatory courses include courses on ideological and political education, general education, educational theory, arts and physical education, and manual labor and technology. The courses on ideological and political education carry the responsibility of educating the students in the rudiments of Marxism, in the importance of adhering to the Four Cardinal Principles; in the policy of reform and opening up to the outside world; in patriotism, socialism, moral integrity (especially teachers' professional ethics, or virtues), civics, democracy and legality, independence, initiative, hard work, and arduous struggle; and in waging struggle against bourgeois liberalization. The academic or general education courses are conducted on the basis of junior secondary schools, and they are required to provide the students with the knowledge and skills, and other competencies, needed for teaching in primary schools, including training in Putonghua and in handwriting. Courses on educational or pedagogical theories, and on teaching materials and methods, should be taught in the light of the actual needs of primary school teaching, focusing on fundamentals of educational theory, on scientific methods of education and teaching, and on the fostering of practical ability. Courses on arts and physical education should strengthen training in the basic knowledge and skills indispensable for teaching in primary schools, help cultivate aesthetic appreciation, and build a strong physique. Courses on manual labor and technology should be instrumental in fostering respect for manual labor and in providing students with the knowledge and skills needed in teaching subjects on productive labor in primary schools, and efforts should be made to enable the students to acquire certain skills and to foster good habits of labor.

All categories of courses should endeavor to impart knowledge with a local color and flavor. Normal schools mainly preparing teachers working in rural primary schools should pay much attention to awareness of issues related to the realization of modernization in the countryside, and related to material, cultural, and ethical progress in the countryside. Table B-1 provides a list of obligatory courses and the approximate teaching hours required for them.

Course Offerings—Elective Courses

The electives constitute an integral part of the teaching activities conducted in normal schools, and one of great significance. Some electives are offered in response to local needs related to economic and cultural development, and some are conceived with a view to widening the scope of students' knowledge and to developing their interests and aptitudes. These courses play a useful role in enhancing the competence of students in teaching, especially the ability to teach a variety of subjects in primary schools.

Electives usually include courses on general knowledge and culture, teaching materials and methods related to primary school subjects, arts, physical education and sports, vocational-technical education with a bearing on local economic development, and so forth. The content of electives embodies the actual needs of education and teaching in primary schools and reflects specific features of local history, geography, and culture, as well as of economic development. Total hours allocated to electives should account for 7–15 percent of the total teaching hours of three-year normal school teaching plans (about 250 to 540 hours).

The electives provided by individual normal schools in various localities should be determined in the light of available teachers and facilities and based on the condition that teaching of obligatory courses must be guaranteed. Teachers should assist their students in making proper choices of electives in light of the anticipated needs of teaching a variety of subjects on graduation, and in light of their personal interests and aptitudes. Electives of individual students should be distributed over all categories of courses, with at least one elective for each category.

TABLE B-1
List of Obligatory Courses and Approximate Teaching Hours

Courses	Hours (approximate)
Ideology and Politics	190
Chinese (including teaching materials and methods in primary schools)	570
Mathematics (including teaching materials and methods in primary schools)	420
Physics	170
Chemistry	130
Biology (including child physiology and hygiene)	130
History	130
Geography	130
Primary School Psychology	100
Primary School Pedagogy	130
Physical Education	190
Music	190
Fine Arts	190
Manual Labor and Technology	150

Educational Praxis

Educational praxis covers praxis (practices) related to ideological education, teaching and learning of academic subjects, and pedagogical theories offered in normal schools. It is an indispensable link in the preservice education of primary teachers, and is instrumental in helping students to familiarize themselves with primary education and primary school pupils and in developing a love for their career and fostering their competence; it also plays a special role in helping them to master the rudiments of scientific methods of education and teaching as applied in primary schools.

Educational praxis covers visits to primary schools, educational surveys and investigations, observation of the work (mainly classroom teaching) of experienced teachers, and educational practice (teaching practicum).

The arrangement of educational praxis should be coordinated with the progress of professional courses and academic courses, as well as with scheduled social practices of various description, and be distributed over three years.

The total time allotted to educational praxis is about ten weeks, to be distributed as follows: first year, two weeks; second year, two weeks; third year, six weeks.

Extracurricular Activities

Extracurricular activities constitute an integral part of the teaching and learning activities of normal schools, being of great significance in helping students to learn knowledge and develop their personality and competencies—especially the competencies related to education and teaching in primary schools.

Extracurricular activities commonly seen in normal schools include lectures on specific topics and organization of various interest groups with activities ranging from academic subjects, to science and technology themes, to athletics, sports, and recreational activities, and even to social surveys.

It is incumbent on the school management to formulate a plan or program of extracurricular activities so that they may be carried out in a systematic manner, well organized and purposeful, and with the proper aid provided by teachers assigned to help with such activities. In promoting extracurricular activities, it is paramount to give full scope to the initiative and enthusiasm of students themselves, so that they may develop their abilities of self-service, self-education, and self-management. Table B-2 provides an outline of the weekly contact hours stipulated for each obligatory course, and their suggested distribution among subject materials.

Supplementary Explanations on the Implementation of This Teaching Scheme

This teaching scheme serves as a reference for the educational departments at the provincial (autonomous regional, and municipal) levels to use in developing and designing their own normal school teaching plans, with proper modifications as they see fit. Where conditions permit, pilot projects for developing integrated courses in the natural sciences or in the social sciences may be initiated. In the case of some regions where conditions are not yet ripe for implementation of this teaching scheme, the educational departments of these regions may continue to implement the older document (entitled "A Circular on Readjusting the Teaching Plans in

TABLE B-2
Weekly Contact Hours of Obligatory Courses and Their Distribution

Subjects	First year	Second year	Third year
Ideology and Politics	2	2	2
Chinese	6	6	4
Teaching Materials and Methods for Primary School Chinese			2
Mathmatics	5	5	
Teaching Materials and Methods for Primary School Mathematics			3
Physics	3	2	
Chemistry	2	2	
Biology (including Child Physiology and Hygiene)	4		
History		2	2
Geography		2	2
Primary School Psychology	3		
Primary School Pedagogy		2	2
Physical Education	2	2	2
Music	2	2	2
Fine Arts	2	2	2
Manual Labor and Technology	2	2	

Normal Schools," promulgated by the State Education Commission in 1986), but they are required to actively create the necessary conditions for conducting educational reform, and when conditions are ripe, they should also implement this teaching scheme.

Teaching plans used in minority normal schools (or classes) are to be formulated by educational departments at provincial (autonomous regional, and municipal) levels, in accordance with the guidelines laid down in this teaching scheme, and in light of conditions existing in these minority areas.

The obligatory courses offered in minority normal schools, or classes, should meet the basic requirements set by the state, and efforts should be made to strengthen bilingual instruction. The minority language of the areas concerned should be taught and also should be used as a teaching medium, and at the same time, students in these schools must be required to learn Putonghua, in accordance with the constitutional provision that "the state promotes the nation-wide use of Putonghua (commonspeech, based on Beijing pronunciation)." Accordingly, the Han Chinese language (in its Putonghua form) should be taught as an obligatory course in minority normal schools. The provision of electives in minority normal schools should be considered in light of the specific features of the minority nationality concerned, and some of them should deal with nationality policies, with the history and culture of minority nationalities, and with regional geography and conditions of regional economic development.

The teaching plans used in specialized normal schools focusing on music or fine arts, on physical education and sports, and on foreign languages should be formulated, in accordance with the aims and objectives of these schools, by the educational departments at the provincial (autonomous regional, and municipal) levels, with the regulations stated in this teaching scheme to be used as general guidelines. In these normal schools, of course, the specialized subject in question should be reinforced, with concomitant reinforcement of the courses on the teaching materials and methods concerning the specialized subject as applied in primary school teaching. Furthermore, in these schools, courses on ideology and politics, Chinese, mathematics, physical education, and primary school psychology and pedagogy should not be neglected; students enrolled in these schools should receive reinforced training in specialized subjects and, at the same time, basically adequate training in courses on ideology and politics, on academic subjects, and in the competencies required for teaching in primary schools at a level similar to that attained in regular normal schools.

This scheme is intended for implementation in three-year normal schools. The four-year normal schools may design their own teaching plans, with the provisions of this scheme to be used as general guidelines.

Appendix 5-C

TABLE C-1
Typical Teaching Plan of Normal Schools in Jiangsu Province

	Contact Hours per Week			
	School Year			
Subject	1st	2nd	3rd	Total Lecture Hours
Ideology and Politics	2	2	2	194
Chinese	6	6	4	520
Teaching Materials and Methods for Primary Schools	2	62		
Mathematics	5	5	330	
Teaching Materials and Methods for Primary Schools	3	93		
Physics	3	2	165	
Chemistry	2	2	132	
Biology (including Child Physiology and Hygiene)	4	132		
History	2	2	128	
Geography	2	2	128	
Primary School Psychology	3	99		
Primary School Pedagogy	2	2	128	
Physical Education	2	2	2	194
Music	2	2	2	194
Fine Arts	2	2	2	194
Total weekly teaching hours for obligatory courses	31	29	23	2,693
Electives	0–2	2–4	4–6	190–384
Extracurricular Activities	3–5	3–5	3–5	291–485
Total amount of weekly activities	34–38	34–38	30–34	
Manual Labor and Technology (in weeks)	2	2	4	
Educational Praxis (in weeks)	2	2	6	10
Reserved time (in weeks)	1	1	1	3
Review and examination sessions (in weeks)	2	2	2	6
Number of weeks in session per school year	33	33	31	97
Total number of weeks per school year	40	40	40	120

Appendix 5-D

TABLE D-1
Plan of Teaching and Learning Activities Formulated by Nantong Normal School in Jiangsu Province

	Contact Hours Per Week			
	School Year			
Subject	1st	2nd	3rd	Total Lecture Hours
Ideology and Politics	2	2	2	188
Chinese	6	5	4	476
Teaching Materials and Methods for Primary School Chinese			2	54
Mathematics	4	2	3	281
Teaching Materials and Methods for Primary School Mathematics		2	2	122
Physics	3	2		167
Chemistry	2	2		134
Biology (including Child Physiology) and Hygiene	4			132
History			3	99
Geography				99
Primary School Psychology	3			99
Primary School Pedagogy		3	1	135
Physical Education	2	2	2	188
Music	2	3	2	222
Fine Arts	2	2	2	188
Skill Training	2	2		161
Total weekly teaching hours for obligatory courses	30	27	26	2747
Electives		3	5	237
Manual Labor and Technology	2 weeks	2 weeks		144
Learning from experienced teachers	1	2	2	134
Educational Praxis				
Teaching			3 weeks	288*
Practicum			5 weeks	
Extracurricular Activities	4	4	4	376
Number of weeks in session per school year	33	34	27	

*Teaching and practicum combined.

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6

Teacher Training and Professional Development in Hong Kong

Submitted by: Education and Manpower Branch, Government Secretariat

CONTEXT

Definitions

Table 6.1 provides information for definitional purposes.

Education Systems and Student Population

Of the 6 million people in Hong Kong, about 1.2 million are young people undergoing fulltime education. The breakdown by level is as follows:

- Pre-primary: 190,000
- Primary: 502,000
- Secondary—in schools: 446,000
- Secondary—in technical institutes: 13,000
- Postsecondary (tertiary): 48,000.

The bulk of this population is ethnic Chinese. A small proportion—about 1 percent—comprises the children of those who have come to Hong Kong for business and other purposes. These children receive an education based on a curriculum relevant to their own countries. Consideration of this group is excluded for the purposes of the present paper.

All children in Hong Kong receive nine years of free, and compulsory, education, consisting of six years of primary and three years of junior secondary schooling. Provisions beyond junior secondary are designed to meet social and economic needs and are subsidized up to about 85 percent of cost. The pre-primary sector is not formally subsidized by the government but assistance is given to parents and kindergarten operators in various forms.

Education constitutes the largest single item of recurrent government expenditure—20 percent. The education budget in the 1993–1994 financial year amounts to HK$22.2 billion (US$2.8 billion).

Table 6.2 shows the provision of subsidized places for different levels of education expressed as a percentage of the relevant age groups (see also Appendix 6-A).

In general, Hong Kong has a highly uniform system of schooling. There are no significant geographical differences in terms of curriculum, standards, or mode of operation. There are 937 government and *aided* schools at the primary and secondary levels that are fully funded by the government. About 10 percent of these schools are run directly by the government. The rest are operated by nonprofit organizations, such as charitable or religious bodies, with government subsidies designed to provide the same standard of education as government schools. A detailed breakdown of the number of schools at the kindergarten, primary, and

TABLE 6.1
Definitions

Typically, How Do You Define	In Terms of Grades/Levels	Age Range of Students	Type and Level of Education Required to Teach at This Level
Pre-primary schooling	(a) A 1-year course of nursery education (b) A 2-year course of kindergarten education	(a) When a child has attained the age of 3 (b) When a child has attained the age of 4–5	At least Secondary 5 or Secondary 3 plus in-service training. Most in fact have completed Secondary 5.
Primary schooling	A 6-year course of primary education	Starting when a child has attained the age of 6	1. Mainly secondary 5 + 3-year full-time preservice teacher training, or Secondary 7 + 2-year full-time preservice teacher training 2. A minority with secondary education + 2-year in-service teacher training
Secondary schooling	(a) 3 years of junior secondary education (b) 2 years of senior secondary education (c) 2 years of 6th form (matriculation) education	Starting when a child has attained the age of 12	1. Secondary 5 + 3-year full-time preservice teacher training, or 2. Secondary 7 + 2-year full-time preservice teacher training, mainly for (a) and 3. Degree + Postgraduate Certificate in Education for the rest
Postsecondary schooling (other than teacher preparation)	Education beyond the state of secondary education	At least 17 years of age	Degree plus PGCE or higher
Preservice teacher preparation	(a) 3-year course for Secondary 5 graduates provided by Colleges of Education (b) 2-year course for Secondary 7 graduates provided by Colleges of Education (c) Diploma, certificate, and degree courses provided by tertiary institutions	Normally over 17	A combination as under secondary schooling for (a) and (b). Degree and higher qualifications for (c).

secondary levels, together with their respective enrollments, can be found in Appendix 6-B.

In addition to public-sector schools, some primary and secondary schools are run by private concerns to meet the needs of a small proportion (11 percent) of the school-age population that prefers privately run schools to public-sector schools. These are not covered in this paper.

Public-sector secondary schools include the following:

- Grammar schools
- Technical schools
- Special schools
- Prevocational schools
- Technical institutes
- Others (practical schools, skills opportunity schools, industrial training centers)

A more detailed description of the specific missions and characteristics of these schools can be found in Appendix 6-C.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

In 1992, there were 46,049 teachers engaged in teaching activities. In terms of deployment, 17 percent were teaching in kindergartens, 39 percent in primary schools, and 44 percent in secondary schools. Their gender and

TABLE 6.2

The Provision of Subsidized Places for Different Levels of Education Expressed as a Percentage of the Relevant Age Groups

Level	Policy Target (%)	Achieved (%)	Remarks
(a) Pre-primary	Not set	85	Not within subsidized sector
(b) Primary	100	100	Part of 9-year free and compulsory education
(c) Junior secondary	100	100	Part of 9-year free and compulsory education
(d) Senior secondary			
–secondary courses	85 } 95	85 } 95	
–craft courses	10	10	
(e) 6th form	28	28	
(f) Tertiary			
–first-year, first degree	18 } 24	18 } 24	Achieved 1994/95 academic year
–sub-degree	6	6	

age distributions, broken down by type and sector, can be found in Appendixes 6-D, 6-E, and 6-F.

Qualified Kindergarten Teachers (QKT) have completed senior secondary schooling and two years' in-service training conducted at the government's colleges of education. Every kindergarten is required by law to employ a QKT as the principal. QKTs comprise 21 percent of teachers in the kindergarten sector. They are employed directly by kindergarten operators.

Qualified Assistant Kindergarten Teachers (QAKT) have completed at least junior secondary schooling and 12 to 16 weeks of in-service training at the same government teacher training establishments. In fact, most of these teachers have completed senior secondary schooling as well. The QAKTs comprise 25 percent of kindergarten teachers. Like QKTs, they are employed directly by the kindergarten operators.

These two types of kindergarten teachers make up the trained element of the kindergarten teaching force. Kindergartens are encouraged, but not compelled by law, to have at least 40 percent of their teaching staff trained. Seventy percent of kindergartens have in fact achieved, or exceeded, this target.

The basic requirement for teachers in primary schools is a Teacher Certificate. Those who hold Teacher Certificates are either Secondary 5 graduates who have completed three years of teacher training, or Secondary 7 graduates who have completed two years of similar training, either in preservice or in-service modes, at government colleges of education. These teachers form the bulk of the existing teaching force in this sector.

The balance of the teaching force is made up of teachers who have completed comparable schooling or teacher training courses but whose credentials (e.g., those obtained in foreign countries) are not fully recognized in Hong Kong; or those who meet the basic academic requirements but are without professional training. These teachers are normally appointed to vacancies that cannot otherwise be filled. While in employment, they are encouraged to take up in-service training designed to bring them up to the level of Teacher Certificate holders. Bars to salary increments serve to provide the needed inducement for professional upgrading.

Teachers in secondary schools comprise university graduates (those with university First Degrees) and nongraduate, but qualified, teachers—Secondary 7 graduates who have undergone two years of teacher training, or Secondary 5 graduates who have undergone three years of teacher training in a college of education. University graduate teachers constitute 70 percent of the total. They usually teach higher forms, or grades, which demand more in terms of subject expertise, and they generally receive better pay. Among the university graduate teachers, only those who have gained a post-graduate Certificate of Education—involving one year of full-time or two years of part-time study after First Degree graduation—are considered fully qualified. Among nongraduate teachers, all those holding a Teacher Certificate are considered fully qualified.

Teachers in government primary and secondary schools receive a civil service appointment. Teachers in other public-sector primary and secondary schools are employed by individual school managements.

Characteristics of Teaching Employment

As civil servants, teachers in government primary and secondary schools receive terms and conditions of service common to the rest of the civil service. These include a monthly salary (which is subject to annual cost-of-living adjustments and incremental increases on the basis of performance), leave, medical and dental coverage, a noncontributory pension on retirement, and, depending on rank, some assistance toward housing. Civil service terms and conditions of service are determined by the government on the advice of an independent body. The general policy is for the government to be a responsible employer and to follow pay trends in the private sector.

Teachers in other public-sector primary and secondary schools participate in the same pay scale as their civil service counterparts. They also receive the same leave benefits. As non–civil servants, however, they are ineligible for the other fringe benefits as a general rule, but the government contributes substantially to these teachers' provident fund (5–15 percent of pay, depending on years of service, matched by 5 percent from the teachers themselves). Schools operated by some charitable organizations also offer medical and dental benefits through health and hospital services under the management of the parent organization. A few schools offer housing for staff from their own resources.

The gap between fringe benefits for civil servant and non–civil servant teachers has been a longstanding source of dissatisfaction. In 1993, the government introduced a limited scheme to assist non–civil servant teachers with housing needs.

There are four *ranks*, or categories, for nongraduate primary school teachers (see Appendix 6-H, Table 6.H-1) covering 26 points on a Master Pay Scale (i.e., from points 14–39—see Appendix 6-G). A fully qualified teacher starts at Point 14 (HK$12,940, or US$1,660 per month) and may aspire to the most senior rank pay at Point 39 (HK$40,960, or US$5,250 per month).

There are five ranks for university graduate secondary school teachers (see Appendix 6-H, Table 6.H-2) covering 33 points on the same Master Pay Scale (i.e., from points 17–49—see Appendix 6-G). The salary of a graduate teacher without professional training starts at Point 17 (HK$14,990, or US$1,920 per month) and may rise to the most senior rank pay at Point 49 (HK$59,965, or US$7,690 per month). Nongraduate teachers in secondary schools are paid the same as teachers in primary schools.

Teaching is generally regarded as a well-paid occupation, at least as far as the initial years are concerned. The salary at Point 14 on the Master Pay Scale is comparable to salaries for registered nurses in the public sector and for personnel officers in the manufacturing and trading sectors. Point 17 is comparable to salaries for assistant engineers and assistant town planners in the civil service and to salaries for merchandising officers in the private sector. Point 39 approximates salaries for controllers of telecommunications, chief medical technologists, and principal information officers in the civil service, and is comparable to the salary for accountants in the private sector. Point 49 is the the highest point for senior professionals, that is, senior engineers, senior architects, or chief social work officers.

Teachers in Hong Kong are not compelled to join teacher unions, but several teacher unions and professional bodies have been established. Although these unions do not have a direct say on the salary and professional status of teachers, they promote the interest of education workers; the views of teacher unions and professional bodies are taken into account by the government in the formulation of policies. An elected representative of teachers sits on Hong Kong's legislative assembly.

Patterns of Supply and Demand for Teaching Positions

Generally, teacher vacancies in schools have stabilized at less than 1 percent of the total establishment. Kindergartens have experienced a higher vacancy rate, at less than 2 percent.

The wastage rate in the existing stock of primary school teachers has remained around 10 percent. New recruits make up about 7 percent of the stock. The balance represents the decline in primary school enrollment due to population change. Secondary school teachers have experienced a wastage rate of 11 percent. New recruits now make up 14 percent of the stock. The gain is due to greater success in recruiting graduate teachers in recent years. Kindergartens have experienced a high overall wastage rate of about 20 percent. However, the wastage takes place mostly in the untrained category. Trained, qualified kindergarten teachers suffer only a 9 percent wastage rate, which is no more than that in primary and secondary schools.

Regarding teachers trained to teach specific subjects, areas of shortage for secondary schools include Chinese literature, English language, and computer studies, while the area of shortage for primary schools is in English language.

Where fully qualified teachers cannot be found, schools are permitted to take on less qualified staff, and encouraged to put them through in-service training to bring them up to the required standards. When teachers for specific subjects cannot be found, schools have to make do by falling back on teachers with closely related training, such as utilizing mathematics teachers for physics courses. In the final analysis, noncore subjects may be withdrawn.

The supply-and-demand situation in terms of teachers' choices is highly volatile. Much depends on the attractiveness of teaching vis-à-vis other employment opportunities. In the special context of Hong Kong, it also fluctuates according to the propensity of people to emigrate and, lately, on how many of those who have left later decide to return. The basic planning objective is to produce enough qualified teachers to meet anticipated demand in quantitative and qualitative terms. Temporary shortfalls are met by ad hoc solutions, to the best extent possible.

NATURE AND CONTENT OF TEACHER PREPARATION

Characteristics and Governance of Teacher Education Programs

There are two main sources of teacher preparation. Nongraduate teachers for primary and secondary schools attend one of four government-run Colleges of Education (see Appendix 6-I for details and enrollment figures). University graduate teachers attend one of seven degree-granting institutions—three universities, two polytechnics, and two colleges (see Appendix 6-J for details of in-service courses offered at these institutions).

The government Colleges of Education also provide training for kindergarten teachers and for other in-service teacher education. Three of the seven tertiary institutions offer various programs in education. Two of the universities also offer Post-Graduate Certificates in Education (PGCE) to equip subject-based degree holders to acquire the necessary teacher training. They also contribute to in-service training. The Colleges of Education are under the administrative jurisdiction of the Further Education Division, which is one of ten divisions in the Education Department. The colleges are under the immediate direction of an Assistant Director of Education (an outline of the organizational structure of the Colleges of Education can be found in Appendix 6-K). Education-related programs are also offered by faculties or schools of education within the tertiary institutions mentioned above. These programs are detailed in Appendix 6-L.

The Colleges of Education have a total lecturing staff of 440, representing 6.2 percent of the total for the Education Department. Spending for the colleges accounts for HK$188 million, which represents 1.5 percent of the recurrent expenditure of the department—a total of HK$13 billion in fiscal year 1992–1993. Of the total recurrent spending on tertiary education, amounting to HK$6.4 billion in 1992–1993, it is estimated that education-specific programs accounted for HK$98 million, or 1.5 percent. It is not possible to isolate the exact expenditure incurred in educating First Degree holders who subsequently join the teaching force. On the assumed unit cost of HK$95,000 per graduate in 1992–1993, and on the basis of 1,870 graduates taken into the teaching profession over the same period of time, the cost would come to HK$178 million. Thus, the total annual cost attributable to preparing teachers at the tertiary level would be some HK$276 million, or 4.3 percent of the sum devoted to tertiary education. Total spending on teachers would thus be HK$464 million, or 2.4 percent of the total spending on education as a program area.

POLICY GUIDANCE

The general policy on preservice and in-service teacher preparation is that the curriculum should be relevant and kept up-to-date, and that the instruction should be maintained at a high standard.

The Education Department is responsible for developing and delivering the curriculum for nongraduate teachers through the teacher training colleges. The tertiary institutions—as autonomous academic institutions—are similarly responsible for programs offered for university graduate teachers. The present arrangement has been found to be inadequate. Improvements are described under the section on Policy Issues and Trends, below.

Accreditation/Approval

The institutions responsible for running the respective teacher preparation programs also determine the academic qualities of these programs. The Colleges of Education are not externally accredited. Universities in Hong Kong are self-accrediting, and employ networks of external examiners and peer group review. Nonuniversity tertiary institutions are subject to external review by an independent accrediting body.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

The goals are to attract good-quality recruits; equip them with an understanding of young people, teaching skills, and subject knowledge; and support them in their professional development. The specific qualities are of these goals are:

- Physical and psychological well-being
- Sociability

- Positive attitudes toward the profession, learning, and other people
- Good communication skills
- Alertness, sensitivity, flexibility, adaptability, and assertiveness

Academic Preparation Prior to Preservice Teacher Education

This section is applicable to entry into the full-time, preservice programs offered by the Colleges of Education. Apart from meeting minimum academic requirements, detailed in Appendix 6-M, candidates must undergo two interviews and a practical test for certain subjects. The first interview involves an assessment of the candidate's general qualities, including attitudes toward teaching and adaptability to the working environment. The second interview assesses the candidate's competence in coping with the language requirement of the academic programs, which are conducted in either English or Chinese. The practical test is for candidates intending to study physical education, music, art and design, technical drawing, or computer literacy.

Candidates are selected on the basis of how well they perform in the interviews and on the practical test, if applicable. Where merits are equal, preference is given to the candidates receiving the highest grades in public examinations. The number of entrants into the Colleges of Education is determined by projection of demand and, in the short term, constrained by physical capacity at the colleges. In 1993, the target intake was 1,100. There were 9,315 applicants, of whom 2,173 were interviewed; 1,199 were finally registered.

Nature and Content of Preservice Teacher Preparation Curricula

A detailed explanation of of full-time preservice courses offered by the Colleges of Education appears in Appendix 6-I.

Differences in the Nature and Content of Teacher Preparation Programs

The Colleges of Education operate below the degree level. Their programs teach a combination of subject knowledge and pedagogy. Degree-level education-related programs have particular focuses, whether they be the training of school administrators, physical educators, or music teachers. The Post-Graduate Certificate of Education offered by the two universities aims to equip subject-based graduates with pedagogical skills.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

Hong Kong has developed a common core curriculum for the general guidance of schools. Individual schools are encouraged to develop their own school-based curriculum to suit their own needs. In practice, most schools follow the common core curriculum, with minor adaptations. The teacher education curriculum in use at the Colleges of Education is designed with the school common core curriculum in mind. Emphasis is put, however, on the need to adapt to suit the needs of schools and students. The teacher education curricula used by tertiary institutions follow a similar approach.

LICENSING

Initial Requirements

The registration of teachers is governed by law and administered by the Education Department. There are two channels for obtaining a license to teach. The first is to become a *registered* teacher. This status applies to holders of Teacher Certificates from the Colleges of Education (whether obtained preservice or in-service) and university degree-holders with a Post-Graduate Certificate of Education. Registered teachers can teach in all schools, subject to the schools themselves deciding on the level of classes and subjects taught.

The second is to be granted the status of a *permitted* teacher. This approval limits the teacher to particular subjects within particular schools, and is not transferable. It applies to graduates who do not have the PGCE and to candidates who do not have Teacher Certificates.

Licensing Reauthorization

The status of a registered or permitted teacher, once granted, is not subject to further renewal.

Status of Qualifying Conditions

There are no variations in statutory requirements for teacher registration. The statutory authority, however, in the person of the Director of Education, can exercise certain discretions on interpretation of the law.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

The induction of new teachers takes the form of talks and seminars organized by the Education Department, and by other teacher organizations, in the summer holidays before the start of the new term. Schools are also encouraged to offer school-based programs with the help of the more experienced teachers. Some funding is provided by the government for this purpose.

Professional Development Opportunities

A wide range of in-service courses is available for teachers at different levels for the purposes of professional development. Some of these are prerequisites for promotion to higher ranks (for details, see Appendix 6-J). It is recognized that a more structured and coherent framework of in-service development is needed. Improvements are expected to emerge from the new Institute of Education and the new Advisory Committee on Teacher Education and Qualifications (see section below).

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Present Concerns for Change and Improvement

The most pressing problem is the need to revitalize teaching in primary schools. A past preoccupation has been to expand opportunities for education. This has been achieved at the expense of quality. Now, the community expects far more in terms of facilities and teachers. The advent of universal education has also brought with it problems not evident in an earlier era, when those fortunate enough to gain access to education were motivated and able to do well. Now teachers have to cope with pupils of much more diverse backgrounds, motivations, and abilities. This challenge puts new demands on the skills and dedication of the individual teacher.

Increased career opportunities outside of teaching and expanded access to tertiary education have had the effect of luring people of good quality away from a career in teaching. There is still no shortage of people interested in becoming teachers. But it is necessary to uphold and improve the level of quality of recruits by increasing the competitiveness of a teaching career in terms of status, initial prospects, and the availability of a clear path for career and professional development. Separately, as Hong Kong becomes a more affluent community, its present stand of leaving the kindergarten sector in the hands of private operators has come under increasing pressure. The upgrading of the quality and professional competence of kindergarten teachers has become a major issue (especially when improvements to the primary school sector are being pursued vigorously).

Present and Long-Range Plans for Improvement

In response to the problems in the primary school sector, the government has embarked on an ambitious program to:

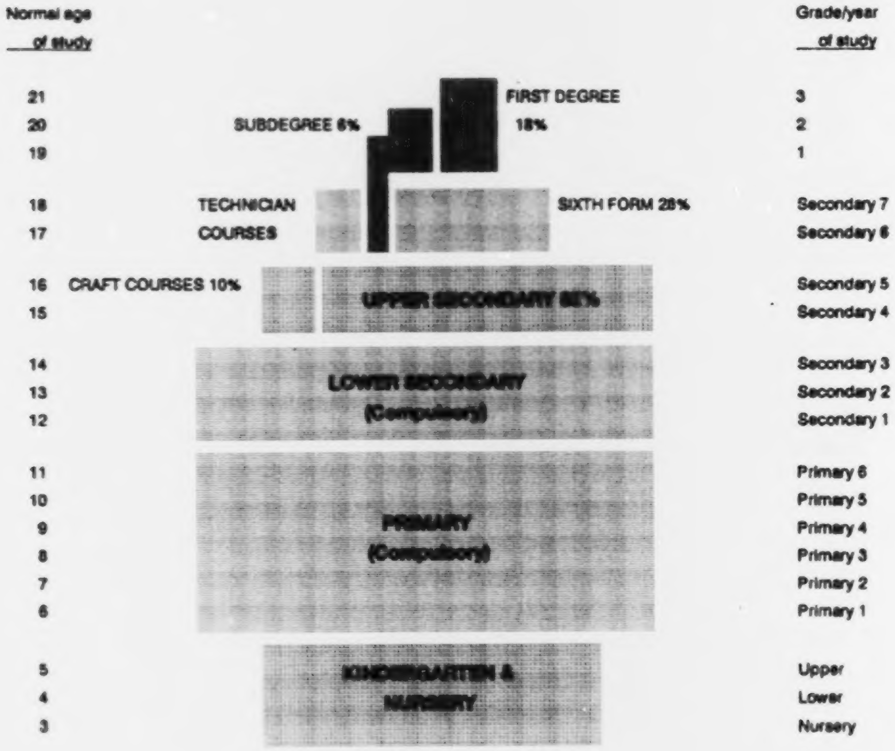
- Upgrade 35 percent of the primary teaching posts to graduate status by the year 2007
- Upgrade the present government-run Colleges of Education to a new, autonomous, tertiary-level Institute of Education, with the authority to offer its own degree programs (the new Institute will be subject to external academic accreditation)
- Create a new body to assess supply and demand of teachers and to recommend to the government how the demand should best be met by the existing and new program providers

These initiatives are estimated to cost HK$22 billion over a 15-year period. The reforms, to be implemented in stages, began in 1993. As regards the situation in the kindergartens, the government has embarked on a review of what must be done. Present indications are that the upgrading of teacher preparation for this sector is a foregone conclusion. The focus is on how improvements could best be achieved through government action, without detracting from the merits of a privately run sector.

Appendix 6-A

EDUCATION SYSTEM OF HONG KONG

LEVEL OF PROVISION FOR EDUCATION


Normal age of study
Grade/year of study
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
FIRST DEGREE 18%
SUBDEGREE 6%
TECHNICIAN COURSES
SIXTH FORM 28%
CRAFT COURSES 10%
UPPER SECONDARY 85%
LOWER SECONDARY (Compulsory)
PRIMARY (Compulsory)
KINDERGARTEN & NURSERY
3
2
1
Secondary 7
Secondary 6
Secondary 5
Secondary 4
Secondary 3
Secondary 2
Secondary 1
Primary 6
Primary 5
Primary 4
Primary 3
Primary 2
Primary 1
Upper
Lower
Nursery

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Appendix 6-B

NUMBER OF DAY SCHOOLS AND ENROLLMENT BY LEVEL AND TYPE, 1992

TABLE B-1

Level	Government	Aided	Private	Total
KINDERGARTEN				
No. of schools	—	—	743	743
Enrollment	—	—	189,730	189,730
PRIMARY				
No. of schools	48	562	78	652
Enrollment	31,050	421,768	48,807	501,625
SECONDARY				
No. of schools	40	323	92	455
Enrollment	38,604	349,036	58,145	445,785

Appendix 6-C

PUBLIC SECTOR SECONDARY EDUCATION AND VOCATIONAL TRAINING INSTITUTIONS

Grammar Schools and Technical Schools

The general aim of grammar schools and technical schools is that all children should follow a broadly similar course of secondary education comprising a balanced blend of academic, practical, and cultural subjects. Technical schools give additional stress on and facilities for practical subjects within the standard course but the differences between grammar and technical schools are not great. Grammar and technical schools offer a five-year course leading to the Hong Kong Certificate of Education Examination and, except for a small minority, a further two-year course leading to the Hong Kong Advanced Level Examination.

Special Schools

Special schools are aided schools catering to children with special educational needs. Some special schools also operate a boarding section. In general, the ordinary school curricula and syllabi are followed in special schools as closely as possible. However, to cater to the varied learning needs of pupils, adapted or specially designed curricula for different subjects, as well as programs on daily living skills, are provided.

Prevocational Schools

Prevocational schools provide the link between general education and education for employment through a knowledge of broad-based basic skills and a wide range of applications of modern techniques in at least two major fields of local employment. Pupils graduated from a prevocational school should have acquired a solid foundation of general knowledge and an introduction to a broad-based technical and practical education on which future vocational training may be based. Prevocational schools offer a five-year course leading to the Hong Kong Certificate of Education Examination and most of them also offer a further two-year course leading to the Hong Kong Advanced Level Examination.

Other Schools

1. *Skills Opportunity Schools:* Skills opportunity schools are junior secondary schools for students with severe learning problems and who cannot benefit from the ordinary curriculum, even with intensive remedial support. Skills-related subjects are provided in the curriculum.
2. *Practical Schools:* Practical schools are junior secondary schools for unmotivated students. A considerable emphasis is laid in practical learning within the curriculum. Hong Kong Sea School is one of the practical schools.

Technical Institutes

The technical institutes offer craft and technician courses to Secondary 3 and Secondary 5 leavers, respectively. The duration of full-time courses is one year for basic craft courses and two years for technician courses. Part-time courses are offered on a day-release or evening basis, and the duration is normally either two or three years. The wide range of disciplines include commercial studies, computing studies, design, engineering, hotel keeping and tourism studies, clothing, and textile and construction industries.

Industrial Training Centers

Industrial training centers offer basic training or skills upgrading for industrial craftsmen and technicians, and for clerical and supervisory personnel in the service sector. There are at present 19 training centers for different sectors.

Appendix 6-D

NUMBER OF KINDERGARTEN TEACHERS BY AGE, GENDER, AND TYPE OF KINDERGARTEN, 1992

TABLE D-1

		Type of Kindergarten		
Age Group	Gender	Profit-making	Non-profit making	Total
15	Male	—	—	—
	Female	—	1	1
	Subtotal		1	1
16–19	Male	—	2	2
	Female	538	391	929
	Subtotal	538	393	931
20–24	Male	1	1	2
	Female	895	772	1,667
	Subtotal	896	773	1,669
25–29	Male	1	—	1
	Female	613	974	1,587
	Subtotal	614	974	1,588
30–34	Male	2	7	9
	Female	514	863	1,377
	Subtotal	516	870	1,386
35–39	Male	4	3	7
	Female	348	466	814
	Subtotal	352	469	821
40–44	Male	4	6	10
	Female	263	370	633
	Subtotal	267	376	643
45–49	Male	2	4	6
	Female	150	203	353
	Subtotal	152	207	359
50–54	Male	2	2	4
	Female	68	77	145
	Subtotal	70	79	149
55–59	Male	8	3	11
	Female	32	54	86
	Subtotal	40	57	97
60 and above	Male	3	7	10
	Female	28	23	51
	Subtotal	31	30	61
Total	Male	27	35	62
	Female	3,449	4,194	7,643
	Subtotal	3,476	4,229	7,705

Appendix 6-E

NUMBER OF PERMANENT PRIMARY TEACHERS BY AGE, GENDER, AND SECTOR, 1992

TABLE E-1

		Sector			
Age Group	Gender	Government	Aided	Private	Total
16–19	Male	-	-	2	2
	Female	-	-	25	25
	Subtotal	-	-	27	27
20–24	Male	36	156	30	224
	Female	137	769	354	1,260
	Subtotal	175	925	384	1,484
25–29	Male	20	508	52	580
	Female	128	1,859	346	2,333
	Subtotal	148	2,367	398	2,913
30–34	Male	12	504	30	546
	Female	95	1,533	182	1,810
	Subtotal	107	2,037	212	2,356
35–39	Male	17	497	20	534
	Female	127	1,513	96	1,736
	Subtotal	144	2,010	116	2,270
40–44	Male	17	718	10	745
	Female	95	2,202	115	2,412
	Subtotal	112	2,920	125	3,157
45–49	Male	16	619	7	642
	Female	95	1,585	68	1,748
	Subtotal	111	2,204	75	2,390
50–54	Male	39	552	10	601
	Female	187	1,216	68	1,471
	Subtotal	226	1,768	78	2,072
55–59	Male	25	531	9	565
	Female	98	686	40	824
	Subtotal	123	1,217	49	1,389
60 and above	Male	2	48	18	68
	Female	5	43	18	66
	Subtotal	7	91	36	134
Total	Male	186	4,133	188	4,507
	Female	967	11,406	1,312	13,685
	Subtotal	1,153	15,539	1,500	18,192

Appendix 6-F

NUMBER OF PERMANENT SECONDARY TEACHERS BY AGE, GENDER, AND SECTOR, 1992

TABLE F-1

		Sector					
Age Group	Gender	Government	Aided	CAPUT/APS	Private with Standard Staff Structure	Private	Total
16–19	Male	—	—	—	—	2	2
	Female	—	—	—	—	1	1
	Subtotal	—	—	—	—	3	3
20–24	Male	61	559	17	22	71	730
	Female	104	1,243	41	32	54	1,474
	Subtotal	165	1,802	58	54	125	2,204
25–29	Male	106	1,738	75	120	179	2,218
	Female	148	2,282	47	118	89	2,684
	Subtotal	254	4,020	122	238	268	4,902
30–34	Male	114	1,753	60	115	113	2,155
	Female	144	1,764	53	100	63	2,124
	Subtotal	258	3,517	113	215	176	4,279
35–39	Male	195	1,529	44	83	89	1,940
	Female	205	1,353	37	79	39	1,713
	Subtotal	400	2,882	81	162	128	3,653
40–44	Male	175	1,072	31	47	56	1,381
	Female	141	870	18	31	31	1,091
	Subtotal	316	1,942	49	78	87	2,472
45–49	Male	91	469	13	12	38	623
	Female	73	368	4	19	13	477
	Subtotal	164	837	17	31	51	1,100
50–54	Male	104	361	17	33	38	553
	Female	69	221	11	11	16	328
	Subtotal	173	582	28	44	54	881
55–59	Male	67	260	13	27	33	400
	Female	12	90	5	6	6	119
	Subtotal	79	350	18	33	39	519
60 and above	Male	1	51	5	8	38	103
	Female	—	16	6	3	11	36
	Subtotal	1	67	11	11	49	139

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Appendix 6-G

MASTER PAY SCALE (IN HONG KONG DOLLARS*)

TABLE G-1

Point	As of Jan. 1992	As of Jan. 1993
49	HK$54,635	HK$59,965
48	52,740	57,885
47	50,905	55,875
46 (44B)	49,125	53,920
45 (44A)	47,420	52,050
44	45,765	50,230
43	44,175	48,485
42	42,350	46,485
41	40,605	44,570
40	38,925	42,725
39	37,320	40,960
38	35,670	39,150
37	34,095	37,425
36 (33C)	32,565	35,745
35 (33B)	31,120	34,155
34 (33A)	29,740	32,645
33	28,530	31,570
32	27,245	30,150
31	26,020	28,795
30	24,855	27,505
29	23,745	26,275
28	22,675	25,090
27	21,655	23,965
26	20,685	22,890
25	19,760	21,865
24	18,890	20,905
23	18,040	19,965
22	17,235	19,070
21	16,450	18,205
20	15,670	17,340
19	14,925	16,515
18	14,220	15,735
17	13,545	14,990
16	12,895	14,270
15	12,280	13,590
14	11,695	12,940
13	11,130	12,315
12	10,490	11,610
11	9,875	10,930
10	9,305	10,295
9	8,765	9,700
8	8,225	9,105
7	7,720	8,545
6	7,245	8,020
5	6,805	7,535
4	6,380	7,065
3	5,995	6,635
2	5,625	6,225
1	5,285	5,850

*_Note:_ The Hong Kong dollar is linked to the U.S. dollar at a fixed exchange rate of HK$7.8 = US$1.

Appendix 6-H

RANKS AND CORRESPONDING SALARY POINTS FOR NONGRADUATE PRIMARY SCHOOL TEACHERS AND FOR UNIVERSITY GRADUATE SECONDARY SCHOOL TEACHERS

TABLE H-1
Nongraduate Primary School Teachers

Rank	Salary Point (Master Pay Scale)
Certified Master	14–24
Assistant Master	25–29
Senior Assistant Master	30–33
Principal Assistant Master	34–39

TABLE H-2
University Graduate Secondary School Teachers

Rank	Salary Point (Master Pay Scale)
Graduate Master	17–33
Senior Graduate Master	34–39
Principal Graduate Master/Assistant Principal	38–41
Principal II	40–44
Principal I	45–49

Appendix 6-I

COURSES OFFERED AND ENROLLMENT AT COLLEGES OF EDUCATION

Courses Offered

1. Three-year full-time (Chinese) preservice teacher training using Chinese as the medium of instruction, designed to produce qualified teachers of general subjects at primary level and two elective subjects up to Secondary 3. Minimum entry qualification for this course is Grade E in six different subjects at the Hong Kong Certificate of Education Examination (HKCEE), including English language and Chinese language, obtained in not more than two sittings.
2. Three-year, full-time (English) preservice teacher training using English as the medium of instruction, designed to produce qualified teachers of general subjects at primary level and two elective subjects up to Secondary 3. Minimum entry qualification for this course is Grade E in six different subjects at the HKCEE level, including English language and Chinese language, in not more than two sittings.
3. Three-year, full-time (English) preservice teacher training using English as the medium of instruction, designed to produce qualified teachers of prevocational schools. Minimum entry qualification for this course is Grade E in six different subjects, including English language and Chinese language, at the HKCEE level in not more than two sittings.
4. Two-year, full-time (English) preservice training using English as the medium of instruction, designed to produce qualified teachers for general subjects at primary level, and two elective subjects up to Secondary 3. The minimum qualification for this course is Grade E or above in at least two subjects at A-Level in HKAL.
5. One-year, full-time Advanced Course of Teacher Education (ACTE) designed to equip serving, qualified, non-graduate teachers of cultural, technical, and practical subjects to teach their specialized subjects up to Secondary 4 and Secondary 5 levels. Teachers attending the course are granted full-pay study leave and schools releasing the teachers for the course are provided with temporary replacement teachers.
6. Two-year, part-time In-service Course of Training for Teachers in Primary Schools (2Y ICTT[P]) for academically qualified teachers employed in aided or private schools who do not possess the professional qualifications to make them eligible for classification as "Qualified Teachers." Applicants must be: Diploma holders of HK Baptist Colletge (from 1970); graduates or final year students of HK Shu Yan College (from 1976) or Lingnan College, HK (from 1979); or holders of a Higher Diploma awarded by the HK Polytechnic or City Polytechnic of HK.
7. Three-year, part-time, In-service Course of Training for Teachers in Primary Schools (3-Y ICTT[P]) for academically qualified teachers employed in aided or private schools who do not possess the professional qualifications to make them eligible for classification as "Qualified Teachers." The general entry requirements are that applicants should be full-time, permitted or registered teachers in primary schools and should have at least five subjects at Grade E or above in the HKCEE.
8. Two-year, part-time In-service Course of Training for Teachers in Secondary Schools (2-Y ICTT[S]) and
9. Three-year part-time Inservice Course of Training for Teachers in Secondary Schools (3Y ICTT[S]). These courses are provided for academically qualified teachers employed in aided or private schools who do not possess the professional qualifications to make them eligible for classification as "Qualified Teachers." The general entry requirements of the three-year course is five subjects at Grade E or above in the HKCEE. For the two-year course, applicants must be: Diploma holders of HK Baptist Colletge (from 1970); graduates or final-year students of HK Shu Yan College (from 1976) or Lingnan College, HK (from 1979); or holders of a Higher Diploma awarded by the HK Polytechnic or City Polytechnic of HK.
10. Part-time Refresher Training Course for Serving Secondary School Teachers (Nongraduate) (RTC[NG]) to acquaint serving, qualified, nongraduate secondary school teachers who have more than five years of teaching experience after their initial teacher training with modern teaching methods and approaches at secondary level.
11. Two-year, part-time In-service Course of Training for Qualified Kindergarten Teachers (2-Y QKT). Open to serving kindergarten teachers with Grade E or above in at least two subjects in HKCEE. On successful

completion of the course, participants will be accorded "Qualified Kindergarten Teacher" (QKT) status.

12. Twelve-week, part-time In-service Course of Training for Qualified Assistant Kindergarten Teacher (12-week QAKT). Open to serving kindergarten teachers. On successful completion of the course, participants will be accorded "Qualified Assistant Kindergarten Teacher" (QAKT) status.
13. Two-year, part-time In-service Course of Training for Teachers of Children with Special Educational Needs (2-Y ICTT[SE]) provides initial in-service training for qualified nongraduate or graduate teachers teaching in special schools or special education classes.
14. One-year, full-time course provides initial teacher training to those who wish to become technical teachers in prevocational schools. Applicants must possess either a Diploma/Higher Certificate/Higher Diploma awarded by a Polytechnic or a Technical Institute or an equivalent qualification, and should have at least two years of relevant postqualification industrial experience.
15. Two-year, part-time In-service Course of Training for Technical Teachers (2-Y ICTT[T]) for academically qualified teachers employed in aided or private schools who do not possess the professional qualifications to make them eligible for classification as "Qualified Teachers." The general entry requirements are that applicants must be: Diploma holders of HK Baptist College (from 1970); graduates or final year students of HK Shu Yan College (from 1976) or Lingnan College, HK (from 1979); or holders of a Higher Diploma awarded by the HK Polytechnic or City Polytechnic of HK. They should also have majored in a technical or commercial discipline.
16. Part-time Refresher Training Course for Serving Secondary School Technical Teachers (RTC[T]) to acquaint serving technical and commercial subject teachers—who have more than five years of teaching experience after their initial teacher training—with modern teaching methods and approaches at secondary level.
17. Five-week Retraining Course for Primary School Teachers (PRC) to acquaint serving, qualified primary school teachers—who have more than five years of teaching experience after their initial teacher training—with modern teaching methods and approaches at primary level.
18. Part-time courses: A range of trainers' training programs for a wide spectrum of the HK community, notably the industrial and the commercial sectors, is provided.
19. In-service Short Courses for Technical/Commercial Teachers. Short courses and seminars on specific topics tailored to the needs of serving technical and commercial teachers are provided.

Figures for student enrollment in the above courses, as of January 1993, are shown in Table I-1.

TABLE I-1

Student Enrollment in Government Colleges of Education Courses as of Jan. 1993

Courses	Enrollment
(a) 3-year Fulltime (Chinese)	367
(b) 3-year Fulltime (English)	855
(c) 3-year Fulltime (English) (Technical and Commercial)	126
(d) 2-year Fulltime (English)	659
(e) ACTE	94
(f) 2-year ICTT (Primary)	161
(g) 3-year ICTT (Primary)	333
(h) 2-year ICTT (Secondary)	38
(i) 3-year ICTT (Secondary)	171
(j) RTC (non-graduate)	201
(k) 2-year QKT	294
(l) 12-week QAKT	160
(m) 2-year ICTT (Special Education)	338
(n) 1-year fulltime (Technical)	9
(o) 2-year ICTT (Technical)	20
(p) RTC (Technical)	32
(q) RC (Primary)	174
(r) Part-time courses	491
(s) Inservice short courses	—
Total	4,523

Appendix 6-J

IN-SERVICE COURSES
AT THE COLLEGES OF EDUCATION

Advanced Course of Teacher Education (ACTE)

This is a one-year, full-time course, which is intended to equip nongraduate teachers of cultural, practical, and technical subjects to teach these subjects up to senior secondary level. The course will comprise a core of studies in Education, Educational Technology, Complementary Studies, and Language Skills, which all students must follow. In addition, each student will study in depth, on an elective basis, one area of subject specialization. Practical teaching in schools will form an integral part of the course. For technical teachers, the practical teaching element will be replaced by a period of attachment to industry or to commercial firms.

The areas of subject specialization offered are as follows:

- Art and Design
- Home Economics (Home Management)
- Home Economics (Dress and Design)
- Physical Education
- Music
- Commerce
- Design and Technology

An applicant should have two years full-time, posttraining teaching experience in the subject for which the application is made. Successful applicants will be granted one year full-pay study leave.

Part-Time Conversion Course for Serving Primary and Secondary School Teachers

This is one year, part-time conversion course for (1) holders of part-time "In-service Course of Training for Teachers in Primary Schools" who are now teaching at secondary level; and (2) holders of part-time "In-service Course of Training for Teachers in Secondary Schools" who are now teaching at primary level.

Core studies for the first category above consist of studies in Education, Teaching Techniques, and Educational Technology, while core studies for the second category consist of studies in Education and Primary Studies in Chinese, Mathematics, Social Studies, and Science and Health Education. For practical teaching, teachers will be supervised in their teaching throughout the course of training.

Course for Teachers of Children with Special Education Needs

This is a one-year, full-time course for nongraduate teachers in special schools and special classes. The curriculum of the course in the one-year study period will include a Common Core Program, which covers essential areas of general and generic studies in special education.

In addition to the Common Core, each trainee will be required to take up a major and a minor elective to study in depth the adaptation and teaching techniques for two types of children with special education needs. The areas of specialization are as follows:

- Education of children with learning difficulties
- Education of mentally handicapped children
- Education of visually handicapped children
- Education of hearing-impaired children
- Education of maladjusted and socially deprived children
- Education of physically handicapped children
- Management of children with speech and language problems

Retraining Course for Special Education Teachers

This is a one-year, part-time course of 150 hours' duration. The course aims to provide experienced teachers of children with special educational needs with an opportunity to update their professional knowledge and skills in special education.

The course consists of two main areas of studies—Optional Studies and Specialized Studies. Optional Studies covers both (1) the latest developments in theory and practice in the generic domain of special education and (2) a variety of issues in special education aiming at catering to the diversified needs and interests of individual participants. The following areas of Specialized Studies are offered:

- Education of children with learning difficulties
- Education of mentally handicapped children
- Education of visually handicapped children

- Education of hearing-impaired children
- Education of maladjusted and socially deprived children
- Education of physically handicapped children
- Management of children with speech and language problems

Retraining Course for Primary School Teachers

This course lasts for five weeks and involves the use of distance learning techniques. The aim of the course for teachers is to acquaint serving teachers with modern teaching methods and approaches at primary level, to promote further understanding in the use of resources, and to introduce new concepts in curriculum development.

Together with lectures, wordshops, tutorials, and seminars, the course will emphasize the use of distance learning techniques and independent, self-paced study. To ensure its efficiency and effectiveness, learning packages comprising audio, video, and printed materials will be used throughout the course.

The course content is divided into two modules, Core Area of Study and Curriclum and Methodology. Core areas consist of:

- Child development and its implication for learning
- Activity approach and topic work
- Student guidance
- School administration and extracurricular activities
- Computer application
- Remedial teaching

Curriculum and Methodology consists of the teaching of Chinese, Mathematics, English, Arts and Crafts, Music, Physical Education, and General Subjects.

Course for Teachers of School-based Remedial Support Program

This course lasts for four weeks. The course is specially designed for teachers of the three basic subjects of Chinese, English, and Mathematics, who will teach the bottom 10 percent junior secondary students. The curriculum of the course will include the characteristics and special needs of the target group of students and methods of understanding and meeting their needs. Classroom management and management of behavior problems commonly associated with these students will be included.

Refresher Training Course for Serving Secondary School Teachers (Nongraduate)

This course is operated on 19 alternate Saturday mornings and one weekday afternoon in sessions of three hours each per week for a duration of 37 weeks. The Saturday mornings are for lectures and the weekday afternoons for independent studies, assignments, projects, tutorials, seminars, and visits.

The aim of the course is to acquaint teachers with recent methods and approaches to teaching in secondary schools and to promote further understanding of the use of resources and new concepts in curriculum development. The course is subject-based, with half of the total contact hours allocated to the core studies—consisting of compulsory and optional subjects—and half to the study of the elective subject. Core studies include Educational Ideology and School Practices in Education, Educational Technology, and Optional Subjects. These last include two sets. Set I is as follows:

- Computers in Teaching
- Computers in School Administration
- Workship on Video Program Production
- Juvenile Delinquency
- Student Counseling and Guidance.

Set II is as follows:

- Skills of Conducting Small Group Discussions
- Mixed Ability Teaching
- Parent-Teacher Relations
- Educational Evaluation
- Education for Democracy—Clarification of Concepts.

For elective studies, teachers should select *one* subject, on an elective basis, from fourteen subjects.

Refresher Training Course for Serving Secondary School Teachers (Graduate)

The course is operated on a mode covering 19 alternate Saturday mornings in sessions of four hours each for lectures, and one three-hour weekday afternoon per week for independent studies, tutorials, and seminars.

The aim of the course is to acquaint serving graduate teachers with modern methods of teaching in secondary schools and to promote further understanding of new developments in secondary education.

The course is held at the University of Hong Kong and the Chinese University of Hong Kong. The course at the University of Hong Kong comprises six components—new developments in curriculum and teaching, core studies, options, seminars, tutorials, and independent study. Participants are required to select *one* subject, on an elective basis, from 13 subjects. General studies are conducted in the following:

- The education system in Hong Kong—its implications for teaching
- New developments in educational technology

- Psychology of learning
- Modern trends of assessment
- Curricular trends and roles of teachers in curriculum design and innovations

Core studies includes Philosophy of Education and Management of a Department in Schools. Optional studies include the following:

- Children with learning difficulties
- Counseling skills
- Environmental education
- Handling school delinquency
- Home-school cooperation
- Mastery learning
- Organizing extracurricular activities
- Personal development of teachers
- Personal moral and religious eduction
- School initiatives in curriculum design and innovations
- Skills in conducting small-group teaching
- The concepts of school management
- Initiatives (SMI)
- Using microcomputers in schools.

The program of the Chinese University of Hong Kong is designed to ensure a balance between theory and practice and a foundation on which the participating teachers' further professional and career developments can be built. The program comprises the following courses and nonlecturing-type sessions:

1. *Advances in curriculum studies and teaching methods:* The purpose of this course is to enable participating teachers to nurture a fresh outlook on their major areas of responsibility through lectures, group discussions, and tutorials.
2. *Contemporary theories in education:* The purpose of this course is to elucidate new developments in educational theories from a global perspective.
3. *Educational technology—analysis of instructional processes:* The purpose of this course is to provide participants with opportunities to assess the efficacy of a variety of audiovisual aids in relation to improvement of teaching in classrooms.
4. *Cognate courses:* The purpose of this course is to enhance the participants' understanding of their role as teachers in the classroom and school, and to broaden their perception of their potential contribution to the community.
5. *Seminars*
6. *Tutorials*
7. *Independent Studies*

Refresher Training Course for Serving Secondary School Technical Teachers

This course is operated on 18 alternate Saturday mornings and a weekday afternoon in sessions of three hours per week for a duration of 33 weeks. The Saturday mornings are for lectures and the weekday afternoons for independent studies, assignments, projects, tutorials, seminars, and visits.

The aim of the course is to acquaint serving technical or commercial subject teachers with recent methods and approaches to teaching in secondary schools and to promote further understnding of the use of resources and new concepts in curriculum development. The curriculum comprises two main areas, Professional Studies and Elective Studies. The Professional Studies program aims at improving participants' understanding of current educational issues relevant to their teaching, and at developing skills necessary for handling problems they encounter in teaching. The Educational Technology part of the program introduces to participants the systems approach in instructional design and the selection, application, and evaluation of instructional media for both teaching and learning situations. For Elective Studies, teachers select *one* subject on an elective basis from 11 subjects.

Course for Principal Graduate Masters/Mistresses (PGM) in Secondary Schools.

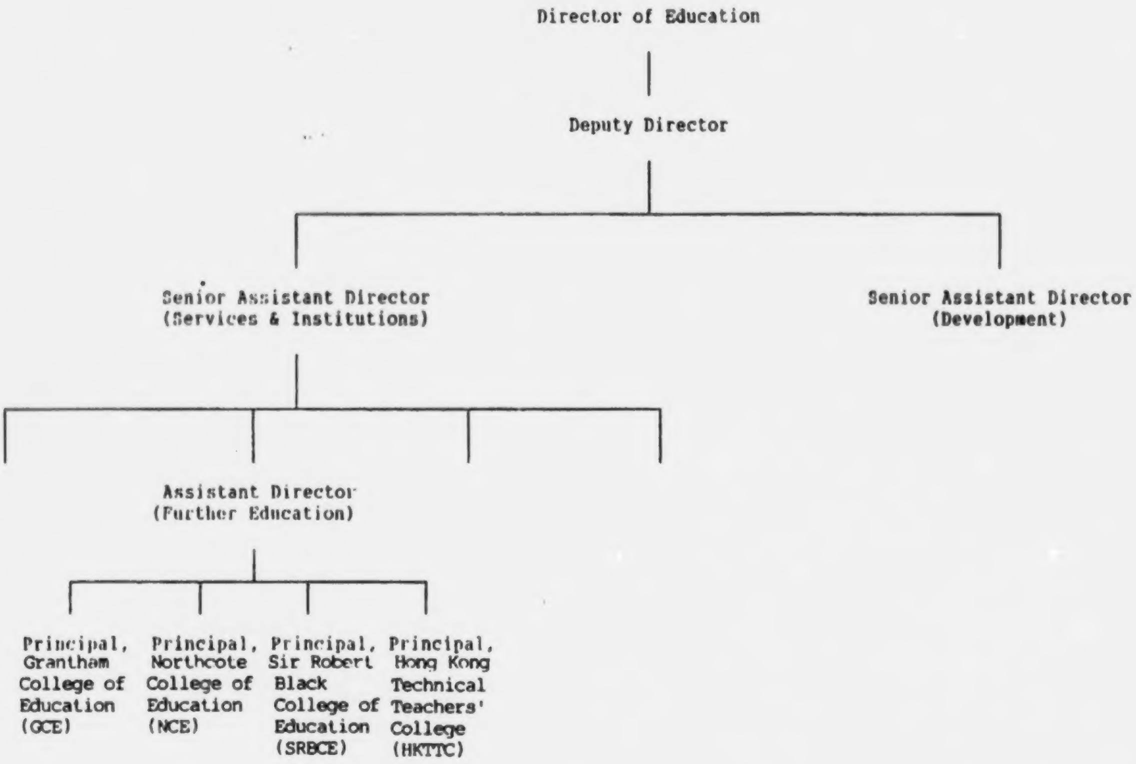
This course is operated by the University of Hong Kong and the Chinese University of Hong Kong. The aim of the course is to give graduate teachers in secondary schools the opportunity to improve their efficiency and knowledge in discharging their duties after their promotion to PGM. The different subjects offered in this course are School Administration, Curriculum Development, Remedial Teaching, Pastoral Care, and Extra-Curricular Activities. The course has a duration of ten meetings, each three hours long.

Course for Principal Assistant Masters/Misstresses (PAM) in Secondary Schools.

This course is operated by the University of Hong Kong and the Chinese University of Hong Kong. The aim of the course is to give nongraduate teachers in secondary schools the opportunity to improve their efficiency and knowledge in discharging their duties after their promotion to PAM. The different subjects offered in this course are Pastoral Care, Guidance/Counseling, and Extra-Curricular Activities. The duration of the course is ten meetings, each three hours long.

Appendix 6-K

ORGANIZATIONAL STRUCTURE OF THE COLLEGES OF EDUCATION


Director of Education
Deputy Director
Senior Assistant Director (Services & Institutions)
Senior Assistant Director (Development)
Assistant Director (Further Education)
Principal, Grantham College of Education (GCE)
Principal, Northcote College of Education (NCE)
Principal, Sir Robert Black College of Education (SRBCE)
Principal, Hong Kong Technical Teachers' College (HKTTC)

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Appendix 6-L

PROGRAMS IN EDUCATION OFFERED BY HONG KONG TERTIARY INSTITUTIONS, 1993/1994

TABLE L-1

Program	Mode	Years of Duration	Entry Requirements	Institution
B Ed	PT	4	Teacher's Certificate	HKU, CUHK
B Ed	FT	4	A-level	HKU
B Sc in Speech and Hearing Sciences	FT	4	A-level	HKU
BA in Physical Education and Recreation Studies	FT	3	A-level	HKBC
CERT ED	PT	1	First degree *or* Teacher Certificate plus 2 years teaching experience	HKU
PGCE	FT	1	First degree	HKU, CUHK
	PT	2	First degree	HKU, CUHK, HKBC
M Ed	FT	1	PGCE	HKU
	PT	2	PGCE	HKU, CUHK
M Phil	FT	1	PGCE	HKU, CUHK
	PT	3	PGCE	CUHK
PhD	FT	3	M Ed/M Phil in Ed	HKU, CUHK
	PT	4	M Ed/M Phil in Ed	CUHK

Key

PGCE—Postgraduate Certificate in Education
HKU—University of Hong Kong
CUHK—Chinese University of Hong Kong
HKBC—Hong Kong Baptist College
FT—fulltime
PT—part-time

Appendix 6-M

ENTRY REQUIREMENTS FOR PRESERVICE TEACHER EDUCATION

TABLE M-1

<table>
<tr><th>3-Year Course</th><th>2-Year Course</th></tr>
<tr><td>1. Applicants should have completed 5 years of education in a secondary school.</td><td>Applicants should have completed 2 years of education beyond the level of Secondary 5 in a secondary school.</td></tr>
<tr><td>2. Applicants should have reached 17 years of age by 30 Sept. in the year of application.</td><td>Applicants should have reached 18 years of age by 30 September in the year of application.</td></tr>
<tr><td colspan="2">3. (a) Applicants should have attained Grade E or above in 6 different subjects at HKCEE level in not more than two sittings, with at least 4 subjects in one sitting.</td></tr>
<tr><td>(b) Applicants should have obtained not less than 11 points for the 6 subjects, calculated on the basis of 1 point for Grade E, progressing to 5 points for Grade A.</td><td>(b) Applicants should have attained Grade E in at least 2 subjects at A-level in HKALE, plus at least Grade D in one other subject at HKCEE.</td></tr>
<tr><td colspan="2">(c) The 6 subjects mentioned above at (a) must include Chinese Language and English Language. Applicants for the English Course should have attained at least Grade E in Syllabus B or at least Grade C in Syllabus A in English.</td></tr>
<tr><td colspan="2">4. Those who have attained public examination results comparable to the standards stated in 3 above may also apply.</td></tr>
</table>

7

Teacher Training and Professional Development in Japan

Submitted by: International Affairs Planning Division, Ministry of Education, Science, and Culture

CONTEXT

Definitions

The following information is provided for definitional purposes. Additional information is provided in the following section, "General Structure of the Education System."

Pre-Primary Schooling: Education in kindergartens and in kindergarten departments of schools for the visually impaired, hearing impaired, and otherwise handicapped.

In Terms of Grade/Levels: n/a
Age Range of Students: 3–6
Type and Level of Education Required to Teach at This Level: Associate's degree from junior colleges with certified teacher training courses.

Note: In pre-primary schooling (kindergarten), children receive comprehensive instruction in the areas of health, human relationships, the environment, language, and expression.

Primary Schooling: Education in elementary schools and in elementary departments of schools for the visually impaired, hearing impaired, and otherwise handicapped.

In Terms of Grade/Levels: 1–6
Age Range of Students: 6–12
Type and Level of Education Required to Teach at This Level: Associate's degree from junior colleges with certified teacher training courses.

Note: In primary schooling (elementary schools), students receive instruction in Japanese language, social studies, arithmetic, science, life environment studies, music, drawing and handicrafts, homemaking, physical education, moral education (private schools may replace this with religion), and special activities. See Table 7.1 for an outline of the standard number of yearly school hours devoted to these subjects.

Secondary Schooling: Education in secondary schools and in secondary departments of schools for the visually impaired, hearing impaired, and otherwise handicapped.

In Terms of Grade/Levels: Lower: 7–9; Upper: 10–12
Age Range of Students: Lower: 12–15; Upper: 15–18
Type and Level of Education Required to Teach at This Level: For lower, associate's degree from junior colleges with certified teacher training courses; for upper, bachelor's degree from universities with certified teacher training courses.

Note: In lower secondary schooling (lower secondary schools), students receive instruction in Japanese language, social studies, mathematics, science, music, fine arts, health and physical education, industrial arts and homemaking, foreign languages, moral education (may

TABLE 7.1
Standard Number of Yearly School Hours in Elementary Schools

Subjects	1st Gr.	2nd Gr.	3rd Gr.	4th Gr.	5th Gr.	6th Gr.
Japanese Language	306	315	280	280	210	210
Social Studies	—	—	105	105	105	105
Arithmetic	136	175	175	175	175	175
Science	—	—	105	105	105	105
Life Environment Studies	102	105	—	—	—	—
Drawing and Handicrafts	68	70	70	70	70	70
Homemaking	—	—	—	—	70	70
Physical Education	102	105	105	105	105	105
Moral Education	34	35	35	35	35	35
Special Activities	34	35	35	70	70	70
Total	850	910	980	1,015	1,015	1,015

Note: One school hour is defined as a class period of 45 minutes.

be replaced by religious education at private schools), and special activities. See Table 7.2 for an outline of the standard number of yearly school hours devoted to these subjects.

In upper secondary schooling (upper secondary schools), general subjects consist mainly of Japanese language, geography and history, civics, mathematics, science, health and physical education, art, and foreign languages. See Table 7.3 for an outline of general education subjects in Upper Secondary Schools and the number of credits for each subject.

Specialized subjects include agriculture, industry, commerce, fishery, home economics, and nursing. In the 1994 academic year, a comprehensive course offering integrated instruction in both general and specialized subjects was also established.

Preservice Teacher Preparation: Teacher training courses at junior colleges, universities, and graduate schools certified by the Minister of Education, Science, and Culture as imparting the qualifications necessary for a teacher certificate.

In Terms of Grade/Levels: Junior colleges: 13–14; Universities: 13–16; Graduate Schools: 17–18 (Master's program)

Age Range of Students: Junior colleges: 18–20; Universities: 18–22; Graduate Schools: 22–24 (Master's program)

Type and Level of Education Required to Teach at This Level: For details on postsecondary education, please see the section "General Structure of the Education System."

In reference to the above definitions, please also note the following:

- In schools for the visually impaired, hearing impaired, and otherwise handicapped, instruction will be based on the curricula at ordinary kindergartens, elementary schools, and secondary schools. Instruction in the special field of educational therapeutic activities is also provided.
- Based on the principle of providing equal educational opportunities, the Ministry of Education, Science, and Culture (*Monbusho*) has established national curriculum standards from kindergarten through upper secondary school to secure an optimum national level of education.
- A *Monbusho* order, which is based on the School Education Law, determines educational content and the number of school weeks for kindergartens, as well as the kinds of courses to be taught in elementary and secondary schools, and in schools for the visually impaired, hearing impaired, and otherwise handicapped. Based on this order, the fundamental standards for individual course objectives and content are laid out in a "Course of Study" for kindergartens, elementary and secondary schools, and schools for the visually impaired, hearing impaired, and oth-

TABLE 7.2

Standard Number of Yearly School Hours in Lower Secondary Schools

Subjects	7th Gr.	8th Gr.	9th Gr.
REQUIRED SUBJECTS			
Japanese Language	175	140	140
Social Studies	140	140	70–105
Mathmatics	105	140	140
Science	105	105	105–140
Music	70	35–70	35
Fine Arts	70	35–70	35
Health and Physical Education	105	105	105–140
Industrial Arts and Homemaking	70	70	70–105
NONREQUIRED SUBJECTS			
Moral Education	35	35	35
Special Activities	35–70	35–70	35–70
Elective subjects, etc.	105–140	105–210	140–280
Total	1,050	1,050	1,050

Note: (1) One school hour in this table shall be fifty minutes.

(2) The number of teaching hours for Special Activities shall be allotted to "class activities" (other than school lunch activities) and "club activities" provided for in the Course of Study for Lower Secondary Schools. However, when necessary, it may be allotted to "class activities" only.

(3) Teaching hours for "elective subjects, etc." may be allotted to additional teaching in Special Activities, as well as to elective subjects.

(4) As regards teaching hours for elective subjects, the standard number of teaching hours for Foreign Languages shall be 105–140 for each grade. The names of elective subjects other than Foreign Languages are specified in the Courses of Study.

erwise handicapped. Courses of study are drawn up by the Minister of Education, Science, and Culture, based on recommendations from the Curriculum Council, an advisory body for the minister.

- Schools establish their own curricula in line with the provisions of the School Education Law, the Enforcement Regulations for this law, and the Course of Study, taking into account current conditions in the school and community, the physical and mental development of students, and student characteristics.

General Structure of the Education System

The structure of Japan's school education system is set out in the School Education Law, which prescribes a system with six years of elementary school, three years of lower secondary school, three years of upper secondary school, and four years of university (see Figure 7.1).

The nine years of elementary and lower secondary schooling are compulsory; parents and guardians are required by law to send children between the ages of 6 and 15 to school. Upper secondary schools provide both general and specialized education for students who have completed compulsory education. Education for the physically and mentally handicapped is carried out at schools for the visually impaired, schools for the hearing impaired, and schools for the otherwise handicapped. Kindergartens offer preschool education.

Special training colleges and miscellaneous schools, while not included in the category of "postsecondary education," provide students with practical vocational training and specialized technical education (see Figure 7.2). In addition, five-year colleges of technology offer graduates of lower secondary schools intensive specialized instruction and help them to develop necessary vocational skills.

By law, only the national government, local governments, and educational foundations can be founders of schools. Schools can be divided into three categories—national, public, and private—according to the status of the "founder." Local governments include Japan's 47 prefectures and 663 cities (population of 50,000 or more), 1,962 towns, and 575 villages in these prefectures. The 12 cities with populations near or exceeding 1 million are specially recognized by law and are given the equivalent authority of prefectures.

TABLE 7.3
General Education Subjects in Upper Secondary Schools; Number of Credits for Each

Subject Areas	Subjects	Standard No. of Credits
JAPANESE LANGUAGE	Japanese Language I	4
	Japanese Language II	4
	Japanese Language Expression	2
	Contemporary Japanese Language	4
	Contemporary Japanese Use and Usage	2
	Classics I	3
	Classics II	3
	Appreciation of Classics	2
GEOGRAPHY AND HISTORY	World History A	2
	World History B	4
	Japanese History A	2
	Japanese History B	4
	Geography A	2
	Geography B	4
CIVICS	Contemporary Society	4
	Ethics	2
	Politics and Economy	2
MATHEMATICS	Mathematics I	4
	Mathematics II	3
	Mathematics III	3
	Mathematics A	2
	Mathematics B	2
	Mathematics C	2
SCIENCE	Integrated Science	4
	Physics I A	2
	Physics I B	4
	Physics II	2
	Chemistry I A	2
	Chemistry I B	4
	Chemistry II	2
	Biology I A	2
	Biology I B	4
	Biology II	2
	Earth Science I A	2
	Earth Science I B	4
	Earth Science II	2
HEALTH AND PHYSICAL EDUCATION	Physical Education	7–9
	Health	2
ART	Music I	2
	Music II	2
	Music III	2
	Fine Art I	2
	Fine Art II	2
	Fine Art III	2
	Crafts Production I	2
	Crafts Production II	2
	Crafts Production III	2
	Calligraphy I	2
	Calligraphy II	2
	Calligraphy III	2
FOREIGN LANGUAGE	English I	4
	English II	4
	Oral Aural Communication A	2
	Oral Aural Communication B	2
	Oral Aural Communication C	2
	Reading	4
	Writing	4
	German	
	French	
HOME ECONOMICS	General Home Economics	4
	Home Life Techniques	4
	General Home Life	4

Note: (1) For both full-time and part-time courses, 35 school hours of lessons per school year are counted as one credit. One school hour lasts 50 minutes. Either all or a selection of some courses are required of all students in all subject areas, except for Foreign Language.
(2) In order to complete an upper secondary school course a student must earn 80 credits or more. A student in a specialized course must acquire 30 or more credits in vocational or other specialized subjects.

Table 7.4 shows a breakdown of schools by type and affiliation for the 1992 academic year. A majority of the kindergartens are privately affiliated, while more than 90 percent of elementary and lower secondary schools are public institutions. Public schools dominate other school categories as well. The discussion in this chapter, therefore, will center on instructors at public schools. Table 7.5 shows a breakdown of students by school type and affiliation for the 1992 academic year.

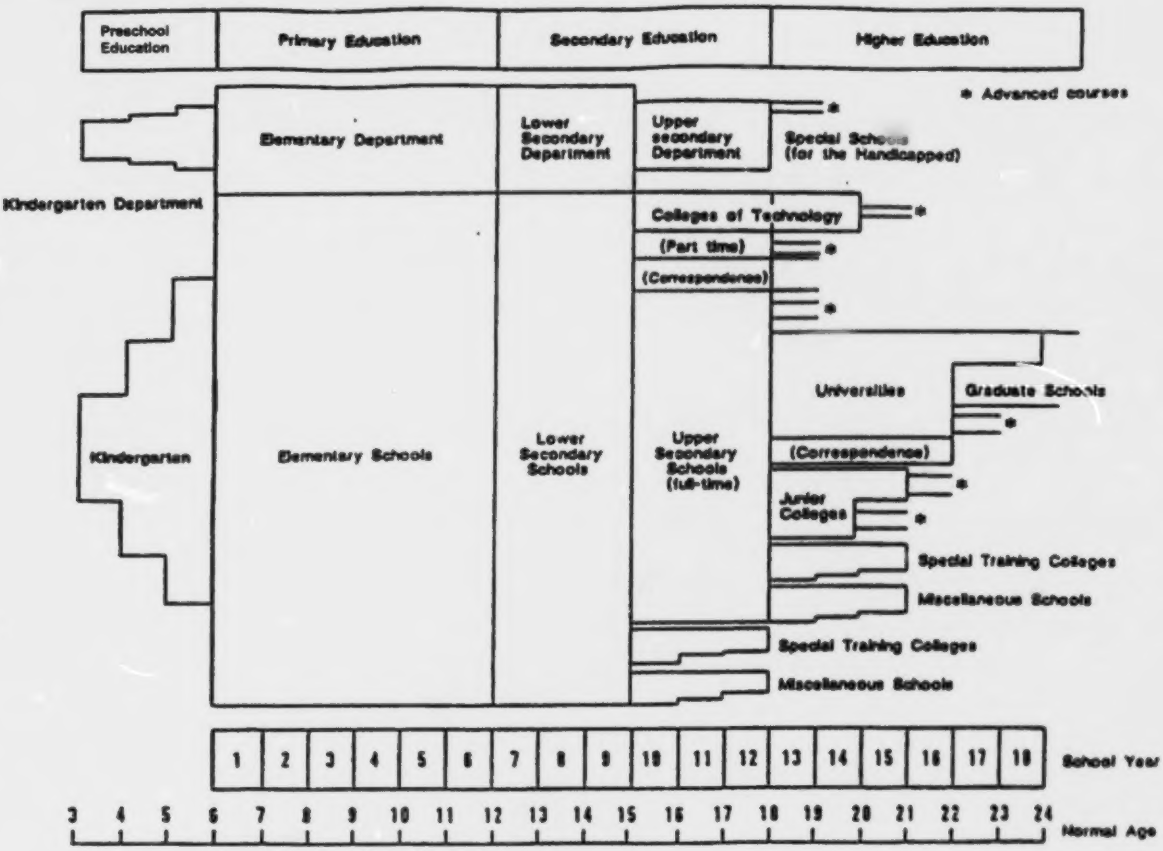
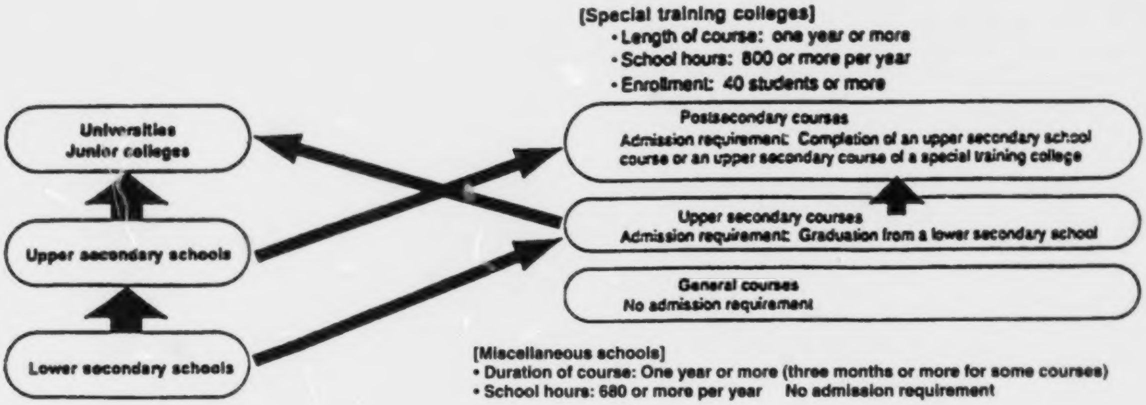

Preschool Education
Primary Education
Secondary Education
Higher Education
* Advanced courses
Elementary Department
Lower Secondary Department
Upper secondary Department
Special Schools (for the Handicapped)
Kindergarten Department
Colleges of Technology
(Part time)
(Correspondence)
Universities
Graduate Schools
(Correspondence)
Junior Colleges
Kindergarten
Elementary Schools
Lower Secondary Schools
Upper Secondary Schools (full-time)
Special Training Colleges
Miscellaneous Schools
Special Training Colleges
Miscellaneous Schools
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
School Year
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Normal Age

FIGURE 7.1
Organization of the present school system.


Universities
Junior colleges
Upper secondary schools
Lower secondary schools
Postsecondary courses
Upper secondary courses
General courses

[Special training colleges]
- Length of course: one year or more
- School hours: 800 or more per year
- Enrollment: 40 students or more

Postsecondary courses
Admission requirement: Completion of an upper secondary school course or an upper secondary course of a special training college

Upper secondary courses
Admission requirement: Graduation from a lower secondary school

General courses
No admission requirement

[Miscellaneous schools]
- Duration of course: One year or more (three months or more for some courses)
- School hours: 680 or more per year No admission requirement

FIGURE 7.2
An outline of the system of special training colleges.

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TABLE 7.4
Breakdown of Schools by Type and Affiliation as of May 1, 1992

Schools	National	Public	Private	Total
Kindergartens	49	6,220	8,737	15,006
Elementary Schools	73	24,487	170	24,730
Lower Secondary Schools	78	10,596	626	11,300
Upper Secondary Schools	17	4,166	1,318	5,501
Schools for the visually impaired	1	67	2	70
Schools for the hearing impaired	1	105	1	107
Schools for the otherwise handicapped	43	729	14	786

TABLE 7.5
Breakdown of Students by School Type and Affiliation as of May 1, 1992

Schools	National	Public	Private	Total
Kindergartens	6,613 (8)*	391,213 (763)	1,551,042 (3,036)	1,948,868 (3,807)
Elementary Schools	47,231 (104)	8,834,049 (49,048)	65,946 (946)	8,947,226 (50,098)
Lower Secondary Schools	34,811 (40)	4,782,499 (23,948)	219,530 (1,533)	5,036,840 (25,521)
Upper Secondary Schools	10,328 (19)	3,684,637 (11,008)	1,523,532 (5,006)	5,218,497 (16,033)
Schools for the visually impaired	212 (2)	4,592 (21)	115 (1)	4,919 (24)
Schools for the hearing impaired	344 (0)	7,586 (28)	67 (0)	7,997 (28)
Schools for the otherwise handicapped	2,985 (5)	73,017 (239)	666 (0)	76,668 (244)

*The number of foreign students is indicated in parentheses.

Of the students who graduated from lower secondary schools in March 1992, 95 percent went on to upper secondary school. No special course is provided for students planning to go on to universities; anyone who has graduated from upper secondary school, who has otherwise completed 12 years of schooling, or who is recognized as having equivalent academic ability is eligible to enter university. Of the students who graduated from upper secondary schools in March 1992, 32.4 percent went on to universities or junior colleges.

The school founder is responsible for administering school operations and for meeting expenses. Public schools are administered by the local board of education, but the school principal is responsible for most day-to-day activities.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

Table 7.6 shows a breakdown of teachers by school type, school affiliation, and gender for the 1992 academic year. Elementary schools, schools for the hearing impaired and otherwise handicapped, and kindergartens feature a higher percentage of female teachers. While male teachers are more common at other kinds of schools, the percentage of female teachers is increasing each year.

Table 7.7 shows a breakdown of teachers by school type and age for the 1992 academic year. At elementary schools, the 35–39 group was the largest, accounting for 21 percent of all teachers, followed by the

TABLE 7.6

Number of Teachers by School Type, Affiliation, and Gender as of Oct. 1, 1992

Schools	National	Public	Private	Total
ELEMENTARY SCHOOLS				
Total	1,744	415,338	2,971	420,083
Male	1,387	171,196	1,522	174,105
Female	387	244,142	1,449	245,978
LOWER SECONDARY SCHOOLS				
Total	1,680	258,316	10,194	270,190
Male	1,345	163,512	6,756	171,613
Female	335	94,804	3,438	98,577
UPPER SECONDARY SCHOOLS				
Total	625	211,864	65,991	278,480
Male	524	169,832	50,526	220,982
Female	101	42,032	15,365	57,489
SCHOOLS FOR THE VISUALLY IMPAIRED				
Total	82	3,220	39	3,341
Male	53	1,866	23	1,942
Female	29	1,354	16	1,399
SCHOOLS FOR THE HEARING IMPAIRED				
Total	84	4,400	35	4,519
Male	54	2,097	17	2,168
Female	30	2,303	18	2,351
SCHOOLS FOR THE OTHERWISE HANDICAPPED				
Total	1,203	35,841	192	37,236
Male	688	16,546	83	17,227
Female	515	19,385	109	20,009
KINDERGARTENS				
Total	274	23,329	76,494	100,097
Male	36	551	5,937	6,524
Female	238	22,329	70,557	93,573

TABLE 7.7

Breakdown of Teachers by Age Group and School Type as of Oct. 1, 1992

Schools	Under 24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60 and Over	Average Age
Elementary	4.3	13.4	18.1	21	16	9.7	7.2	9.4	0.9	39.6
Lower Secondary	4.5	16.1	21.8	17.2	13.0	8.5	8.3	9.3	1.2	39.1
Upper Secondary	2.7	13.1	16.6	15	14.7	12	12.7	9.9	3.3	41.6
Schools for the visually impaired	4.1	13.6	15.6	15.5	13.7	11.5	12	12.6	1.3	41.3
Schools for the hearing impaired	5.3	15.5	17.1	16	12.9	7.8	6.6	7	0.7	35.3
Schools for the otherwise handicapped	5.6	19.5	21.3	18.6	12.9	7.8	6.6	7	0.7	37.7
Kindergartens	40.1	16.3	7.9	9.7	9.2	5.2	3.5	2.9	5.3	32.9

30–34 group, with 18.1 percent. The average age of these teachers was 39.6 years. In the lower secondary schools, the most common age group was 30–34, accounting for 21.8 percent of the total, followed by the 35–39 group, with 17.2 percent. Average age was 39.1 years. At upper secondary schools, the 30–34 (16.6 percent) and 35–39 (15 percent) groups were the most common, and the average age was 41.6 years. This trend is evidence of the change in the number of teachers hired resulting from steep fluctuations in the student population (see the section "Employment Statistics" below).

When the age of public school teachers was broken down by prefectures (for location of prefectures in Japan, see Figure 7.3), Hokkaido had the highest average age for elementary school teachers, at 42.8 years, while Kagawa prefecture was lowest, with an average age of 36. 8 years. In general, instructor age is higher for prefectures where there are declining populations and little new hiring, and lower for those with growing populations and more new hiring. For lower secondary schools, Okinawa prefecture had the highest average age, at 43.2 years, and Shiga prefecture the lowest, at 35.9 years. For upper secondary schools, Okinawa again had the highest average age, at 45.8 years, while Nara prefecture was lowest, at 38.4 years.

Regarding length of service, elementary school teachers served an average of 16.2 years; lower secondary school teachers, 15.2 years; upper secondary school teachers, 16.7 years; teachers at schools for the visually impaired, 16.4 years; teachers at schools for the hearing impaired, 15.9 years; teachers at schools for the otherwise handicapped, 13.3 years; and kindergarten teachers, 9.3 years. Thus, length of service typically averaged 15–16 years.

Table 7.8 shows the academic background of public school teachers. Graduates of teacher training universities and similar specialized institutions accounted for 63 percent of all elementary school teachers, 43 percent of all lower secondary school teachers, and 19.6 percent of all upper secondary school teachers. Thus, the percentage of teachers graduating from general universities rises with school level. Further, the percentage of junior college graduates is on the decline at elementary and secondary schools, while the percentage of university and graduate school graduates is increasing.

Generally, teachers are divided into the following grades: principal, vice principal, teacher, assistant teacher, nurse teacher, assistant nurse teacher, and lecturer. Teachers at secondary schools and the secondary departments of special education schools teach specific subjects.

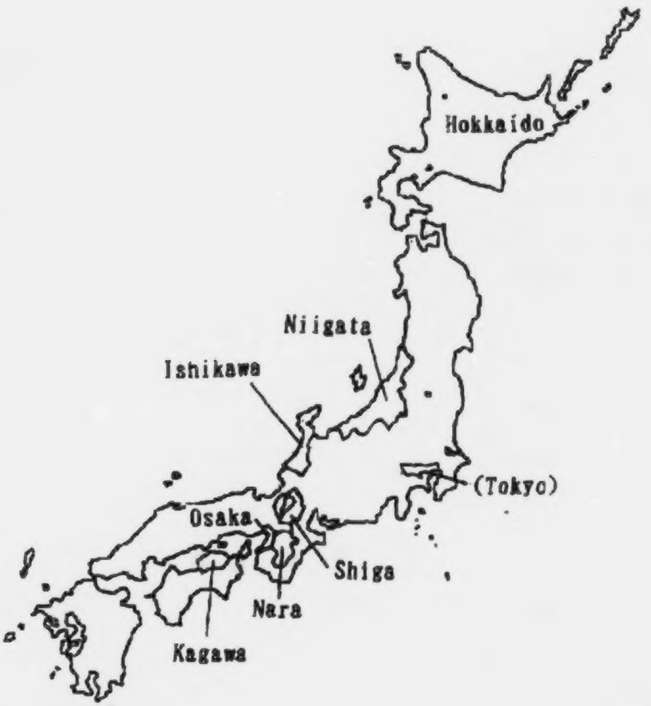

FIGURE 7.3
Locations of prefectures mentioned in the text.

TABLE 7.8
Academic Background of Teachers as of Oct. 1, 1992

TEACHER TRAINING UNIVERSITIES

Schools	Total	Grad. School	Universities	Junior Colleges
Elementary	63	0.6	56.5	5.9
Lower secondary	43	0.9	40	2
Upper secondary	19.6	1.1	17.9	0.7

GENERAL UNIVERSITIES

	Total	Grad. School	Universities	Junior Colleges	Other
Elementary	37	0.1	21.9	14.1	0.9
Lower secondary	57	0.9	47.8	7.8	0.4
Upper secondary	80	7	70.8	1.8	0.8

Public school teachers are hired by the board of education (see "Certification" section below). In the case of public schools, teachers (excluding part-time lecturers) at elementary schools, lower secondary schools, and schools for the visually impaired, hearing impaired, and otherwise handicapped are considered employees of the respective city, town, or village government. To prevent salary disparities resulting from varying local budgets, the prefectural government also pays half the salaries of all teachers employed in the levels of compulsory education in order to maintain compensation levels around the country. A prefectural Board of Education is responsible for hiring and appointing teachers whose salaries are paid by the prefectural government, while municipal Boards of Education supervise their service.

The percentage of public school teachers belonging to teachers' associations continues to drop, falling from 90.9 percent in 1960 to just 58.9 percent in 1992.

Characteristics of Teaching Employment

Teachers at national schools are considered national government employees; those at public schools are considered local government employees; and those at private schools are considered private citizens (i.e., participants in an employment contract based on private law).

Compensation for public school teachers, who are considered local government employees, is specified in local ordinances. Compensation for local school teachers whose salaries are paid by the prefecture is specified in prefectural ordinances to ensure uniform compensation for all teachers in the prefecture. To achieve uniform compensation nationwide, which is necessary to maintain national educational standards, compensation in each prefecture is based on the pay received by national school teachers. Compensation for national school teachers is specified by law. In addition to their base salaries, teachers are eligible to receive allowances for the following: dependents, financial adjustments, housing, transportation, assignments to outlying areas, administrative positions, periodic (end-of-term) costs, and diligent service.

The Special Measures on Securance of Excellent Educational Personnel in Compulsory Education Schools was enacted in 1974 to regulate compensation for teachers at elementary and lower secondary schools. This act states that "necessary incentives, compared to ordinary civil servants, must be provided." By providing special incentives, the law is designed to allow teachers to concentrate on their teaching duties, thereby contributing to the hiring of talented teachers. In fact, teachers' salaries and benefits rose steadily during the 1974–1979 period, producing a marked improvement in compensation. As of the 1992 academic year, the starting monthly salary for a government employee engaged in general administration was yen 161,400 (at the exchange rate concurrent with this writing, one U.S. dollar was equivalent to 100 yen) while teachers at national elementary and lower secondary schools received yen 180,800. Teachers at national elementary and lower secondary schools also receive a special allowance for compulsory education teachers.

In 1972, the government abolished overtime compensation for teachers and substituted the ruling that, based on the special nature of the work and the unique employment conditions, all work, be it during or outside of official working hours, would be evaluated comprehensively, and that teachers would be paid a uniform teachers' adjustment allowance, equivalent to about 4 percent of current base salary.

Average monthly salaries as of September 1992 were yen 309,400 for elementary school teachers (average age: 39.6 years), yen 305,700 for lower secondary school teachers (39.1 years), and yen 330,400 for upper secondary school teachers (41.6 years). Teachers who ha[illegible] performed their duties well during a specified period (usually 12 months) since the setting of their salary are generally given a raise. Teachers with frequent absences, or who have been subject to disciplinary measures, are not considered to have performed their duties well.

As government employees, teachers have their job security guaranteed by law. Unless specified by laws or government ordinances, they are protected from inexpedient actions, such as dismissals or pay cuts. When such actions are deemed unwarranted by teachers, they may lodge protests and file lawsuits. As public servants, government employees are placed under certain restrictions regarding their political activities. The government has ruled that teachers, because they exert a significant influence over their pupils, are forbidden (in schools of all affiliations) to carry on political indoctrination or campaign activities, thus taking advantage of their position and authority. There are also restrictions on outside, part-time employment for teachers, since it is considered a duty of government employees to devote themselves fully to their jobs.

Private-sector workers in Japan have the right to organize, to negotiate, and to strike, and teachers at private schools, because they are not government employees, are no exception. Employees of the national and local governments (including teachers at national and public schools) have the right to organize, but not the right to bargain collectively. They are also forbidden to go on strike. Japanese teachers' unions differ from ordinary labor unions in that they are allowed to report opinions and complaints about working conditions but are not allowed to sign collective agreements or otherwise to determine their working conditions. Working conditions are specified in local ordinances.

Patterns of Supply and Demand for Teaching Positions

Teacher hiring, transfer, and separation for the 1991 school year, which began in April 1991 and ended in March 1992, are described below.

At elementary schools, 16,229 teachers were hired, 69,087 were transferred, and 15,895 were released. At lower secondary schools, 11,856 teachers were hired, 40,712 were transferred, and 10,940 were released. At upper secondary schools, 8,753 teachers were hired, 22,550 were transferred, and 9,169 were released (see Table 7.9).

The rapid increase in the birth rate following World War II, a period commonly referred to as "the first baby boom," produced a marked rise in the student population. To cope with this increase, the Law Concerning Class Size and Number of Educational Personnel in Public Compulsory Education Schools and the Law Concerning Establishment and Placement of Public Secondary Schools and Number of Educational Personnel were enacted in 1958 and 1961, respectively. Based on these acts, the number of public school teachers was calculated based on a specific ratio for each type of school, according to the number of classes and students. As a result of efforts to improve educational standards, the number of teachers has risen steadily, and the ratio of teachers to students is also increasing each year.

Following another peak in the 1980s, the result of a second baby boom, the student population entered a period of decline, and fewer teachers are needed. Combined with the fact that fewer instructors have been quitting in recent years, this has led to a situation in which fewer teachers are being hired.

Listed below are the figures for the number of individuals who took the teachers' employment exam in the 1992 academic year; the number who were actually hired; and the ratio of applicants to openings.

In the case of elementary schools, 34,739 individuals sat for the exam and 10,987 were hired, which translates into 3.2 applicants for every opening. For lower secondary schools, the respective figures were 39,005 and 7,839, for a competitive ratio of 5:0. For upper secondary schools, the figures were 28,007 and 4,383, with 6.4 applicants for every opening. In each school category, then, the number of applicants is considerably higher than the number of openings.

TABLE 7.9

Teacher Migration—April 1, 1991–March 31, 1992

Schools	No. of Hires	No. of Transfers	No. of resignations	Total No. Teachers*
Elementary	16,229	69,087	15,895	420,083
Lower secondary	11,856	40,712	10,940	270,190
Upper secondary	8,753	22,550	9,169	278,480
Special education	2,898	4,839	14,056	45,096

*As of Oct. 1, 1992.

When the ratio of applicants to openings is broken down by subject, it is found that, at lower secondary schools, the greatest competition is for positions in homemaking (8.7) and health and physical education (7.3). Meanwhile, positions in industrial arts (2) and mathematics (2.7) were the most available. At upper secondary schools, the most hotly contested positions were for social studies (11.3) and health and physical education (11). The most available positions occurred in nursing (1.8) and fishery (2).

When analyzed by prefecture, competition was highest for positions in Osaka prefecture, with 12.5 applicants for every opening, followed by Ishikawa prefecture, with a ratio of 8:8. The lowest ratios were shown by Hokkaido (2:2) and Niigata (2:2) prefectures.

The Educational Personnel Certification Law states that a provisional teacher certificate, valid for three years, may be granted when an instructor with a standard teacher certificate is not available. Generally, however, these certificates are granted to individuals who already have teacher certificates for other school levels. At secondary schools, when no teacher is available for a given subject, the granter of the certificate can authorize an instructor without a certificate for the subject to teach for a period of up to one year.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Japan's teacher training is based on the teacher certification system and built around the principle of an open system, wherein both teacher training universities and ordinary universities provide teacher training with their own characteristics. University programs are based on the minimum criteria set out by law and offer training with individual characteristics. Teacher certificates are granted to students who have earned the necessary number of credits as stipulated by law. To maintain uniform standards for teacher training, the ministry, or *Monbusho,* is responsible for certifying all training courses.

Like elementary and secondary schools, universities are divided into three affiliations—national, public, and private—based on the status of the founder. The school founder bears administrative and financial responsibility for the school. It is left to *Monbusho* to certify that a given university course provides students with the basic qualifications required for a teacher certificate (see information below in this section). Certification criteria differ for each type of teacher certificate (see "Certification" section, below).

Between 70 and 80 percent of all junior colleges, universities, graduate schools, and advanced courses have teacher training certification courses (see Table 7.10). Forty-eight national universities have academic faculties devoted solely to teacher training; they are referred to as "teacher training universities." Basically, these national teacher training universities are located in each prefecture.

More than 60 percent of elementary school teachers are graduates of these teachers' colleges. The figure drops to 40 percent for lower secondary schools, and some 20 percent for upper secondary schools. Thus, the higher the level of education, the higher the ratio of ordinary university graduates (see above section, "Basic Characteristics of the Teaching Profession").

Because teacher training is based on an open system, and covers institutions ranging from teachers' colleges to ordinary institutions of higher education, it is very difficult to single out related expenses. Government budgetary outlays for education in financial year 1989 amounted to yen 14.935 trillion, of which institutions of higher learning accounted for yen 2.506 trillion, or 16.8 percent of the total. When the yen 2.579 trillion in donations to private schools are taken into account, educational costs for institutions of higher education amounted to yen 5.085 trillion.

The national government determines the basic policy for measures to improve the quality of teachers in three stages—teacher training, hiring, and in-service training. Decisions are made based on recommendations from the National Council on Education Reform, which is an advisory body to the Prime Minister, and the Educational Personnel Training Council, which is an advisory body to the Minister of Education, Science, and Culture. In 1988, the Educational Personnel Training Council defined the qualities required of a teacher as follows: a sense of mission as an educator; a deep understanding of the process of human growth and development; a professional dedication to the students; education in one's subject specialization; broad and rich knowledge; and practical teaching skills based on this knowledge. In the eyes of the council, concrete measures needed to upgrade teacher quality include improvements in the teacher training and certification system; the creation of an induction training program for newly appointed teachers; and the systematic establishment of in-service training programs.

Characteristics of Teacher Preparation Institutions

Teacher training courses are organized by universities, but the subjects and credit hours required for a teacher certificate are determined by law. The Minister of Education, Science, and Culture is responsible for certifying each training course, based on its compliance with these criteria.

TABLE 7.10
Number of Universities and Junior Colleges with Certified Teacher Training Courses as of June 1992

		Schools with Certified Teacher Training Programs	
Schools, by Type	No. of Schools	No.	%
UNIVERSITIES			
National	98	79	80.6
Public	41	30	73.3
Private	384	306	79.7
Total	523	415	79.3
JUNIOR COLLEGES			
National	39	1	2.6
Public	53	30	56.6
Private	499	381	76.4
Total	591	412	69.7
GRADUATE SCHOOLS			
National	98	77	79.2
Public	23	13	56.5
Private	216	152	70.4
Total	337	242	71.8
ADVANCED COURSES			
National	40	36	90
Public	1	1	100
Private	44	36	81.8
Total	85	73	85.9

Concerning in-service training, the law stipulates that teachers at national and public schools must continue training throughout their careers and that the appointing authorities strive to implement training programs. So-called induction training programs for newly appointed teachers are required by law. Guidelines of *Monbusho* are published for basic items such as the number of days of training and the methods to be used; local boards of education draw up training plans referring to this basic framework, taking into account the state of affairs in individual schools and communities. Further, *Monbusho* has the right to offer both general and specific guidance and advice concerning all aspects of training implementation.

The Minister of Education, Science, and Culture is responsible for certifying that each teacher training course provides students with the basic qualifications required for a teacher certificate. To obtain such certification, the founder of the university submits to the Minister of Education, Science, and Culture an application containing information about the name of the university, faculty and department, the type of teacher certificate, the maximum number of students, the curriculum, instructors, and facilities. The Minister of Education, Science, and Culture then consults the Educational Personnel Training Council and decides whether to certify the course.

The decision is based on factors such as the objectives and character of the university or graduate school department, the interrelationship of these factors with the teacher certificate for which the school is applying, the curriculum, and teachers. In the case of a training course for elementary school or kindergarten teachers, for example, the school must have a teacher training department. Regarding the curriculum, the school must offer the subjects specified in the Enforcement Regulations of the Educational Personnel Certification Law for subjects and teaching, in accordance with the type of certificate being applied for.

After a training course has been certified, *Monbusho* is charged with the responsibility of providing appropriate guidance and advice to maintain and improve course standards.

The appointing authorities are responsible for planning and implementing in-service training. Regarding induction training for newly appointed teachers, the implementing authority draws up an outline and annual training plan for basic items such as the number of days of training and training methods, taking into account the guidelines published by *Monbusho*. Individual schools base their annual instruction plans on these and submit them to municipal boards of education.

NATURE AND CONTENT OF TEACHER PREPARATION

To obtain a teacher's certificate, a person must, in principle, earn the university credits specified in the Educational Personnel Certification Law (see sections below for details).

Academic Preparation Prior to Preservice Teacher Education

To be admitted to a university, a student must have done one of the following:

1. Graduated from an upper secondary school
2. Graduated from the upper secondary department of a school for the visually impaired, hearing impaired, or otherwise handicapped
3. Completed three years of study at a college of technology
4. Been certified by the Minister of Education, Science, and Culture as possessing equivalent qualifications

There is no special preparatory school program, nor are there any uniform criteria, methods, or standards for the acceptance of applicants; each university holds its own entrance examination. The maximum number of students to be accepted is specified in the school regulations for each faculty based on departments or courses. In the 1992 academic year, national teacher training universities accepted 19,930 new students. At ordinary universities, many students are not interested in obtaining a teacher certificate or finding employment as a teacher after graduation.

Nature and Content of Preservice Teacher Preparation Curricula

Subjects in the teacher training curriculum can be divided into two categories: those concerning teaching and those concerning the student's subject specialization. Regarding the former, required subjects and credit hours are specified for each type of school by the Educational Personnel Certification Law and the *Monbusho* order, Science and Culture. Main subjects include the following areas: the essence and goals of education; physical and mental development and the learning process of students; educational methods and techniques (including the use of computers and educational materials); subject teaching methodology; moral education; special activities; student guidance and educational consultations; and teaching practice. To be certified as elementary school teachers, students must earn at least 41 credits; those desiring certification as secondary school teachers must earn at least 19 credits.

Teaching practice usually lasts at least four weeks (four credits) for kindergarten and elementary school teachers, and at least two weeks (two credits) for secondary school teachers. This includes 15–30 hours of instruction (one credit) before and after the teaching experience. Universities and faculties designed for teacher training have schools attached to them for the purpose of teacher training practice. When such schools are unavailable, the university makes a request for cooperation to a student's alma mater or to another suitable school. Schools that are willing and able to accept student teachers on a continuous basis are sometimes designated "special cooperating schools." Although the university draws up the plan for teaching practice, guidance during the teaching practice period is provided alternately by the university and by the cooperating school. During this period, student teachers experience a wide range of teaching duties both inside and outside of their subject specialty, including instruction in moral education, homeroom supervision, and an understanding of school education and the state of the surrounding community and society. The university evaluates the student teacher and approves the credits based on reports from the cooperating school.

Regarding subjects in the student's specialization, required subjects and credit hours are specified by the Educational Personnel Certification Law and by directives from *Monbusho*. To be certified as an elementary school teacher, for example, a student must earn at least two credits in each of the following subjects: Japanese language, social studies, arithmetic, science, life environment studies, music, art and handicrafts, homemaking, and physical education. To be certified as a lower secondary school teacher in mathematics, a student must earn a minimum of 40 credits, including at least 20 credits from among the following subjects: algebra, geometry, analytical geometry, probability and statistics theory, and computers.

Differences in the Nature and Content of Teacher Preparation Programs

As noted above, universities are responsible for organizing their own teacher training courses. Because the Minister of Education, Science, and Culture certifies the courses based on uniform standards, however, no significant disparity can be observed among universities or districts. Training courses are different for each type of teacher certificate; subject matter and credit hours differ depending on the type of school (kindergarten, elementary school, lower secondary school, upper secondary school, schools for the visually impaired, hearing impaired, or otherwise handicapped), the grade of teacher certificate (advanced, first class, second class), and the teacher's subject specialization.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

To ensure national educational standards, the *Monbusho* order and Course of Study specify general standards for the type and content of courses in elementary schools, secondary schools, and schools for the visually impaired, hearing impaired, or otherwise handicapped. The Educational Personnel Certification Law, which specifies the subjects for certification, and the accompanying enforcement regulations, which indicate which class subjects a university must offer, are generally revised in line with the Course of Study.

CERTIFICATION

Initial Requirements

All teachers must have a teacher's certificate. Teacher certificates are issued under the authority of the Educational Personnel Certification Law and are of three types: standard, special, and provisional. Standard certificates are divided into advanced, first-class, and second-class certificates for each school category (elementary, lower and upper secondary, schools for the visually impaired, hearing impaired, or otherwise handicapped, and kindergartens). There is no second-class certificate for upper secondary schools. Teacher certificates are granted to individuals who possess the basic qualifications outlined in Table 7.11, and who have earned the necessary college credits. Certificates for secondary schools are granted for each subject. Prefectural boards of education are responsible for granting teacher certificates, and a standard certificate is valid anywhere in the country.

The "special teacher certificate" was established to allow the utilization of individuals from society at large who possess special skills or expertise. It is granted to individuals who pass the teachers' exam given by the certificate-granting authorities. Provisional certificates are for assistant teacher and assistant nursing teachers and are granted to individuals passing the teachers' exam only in cases when a teacher with a standard certificate is not available. Both special and provisional certificates have a limited lifetime and are valid only within the prefecture where issued.

For certificate holders to actually teach at a public school, they must first pass the Teacher Employment Selection Test, held by boards of education in all prefectures and selected cities. After passing this test, certificate holders are employed as teachers. Standard certificates are valid indefinitely, and certificate holders are permitted to take the Teacher Employment Selection Test as many times as they wish during their careers. The boards of education carry out a multifaceted evaluation of the applicant's skills, qualifications, and suit-

TABLE 7.11
Type of Teacher Certificates and Necessary Qualifications

		Minimum Number of Credits Required		
Type of Certificate	Basic Qualifications	Subject Specialty	Teaching	Subject Specialty or Teaching
ELEMENTARY SCHOOL TEACHER				
Advanced certificate	Master's degree or one year's residence and 30 credits in subject specialty	18	41	24
First-class certificate	Bachelor's degree	18	41	
Second-class certificate	Associate's degree from junior college	10	27	
LOWER SECONDARY SCHOOL TEACHER				
Advanced certificate	Master's degree or one year's residence and 30 credits in subject specialty	40	19	24
First-class certificate	Bachelor's degree	40	19	24
Second-class certificate	Associate's degree from junior college	20	15	
UPPER SECONDARY SCHOOL TEACHER				
Advanced certificate	Master's degree or one year's residence and 30 credits in subject specialty	40	19	24
First-class certificate	Bachelor's degree	40	19	

Note: Teacher certificates also exist for teachers at special education schools, for kindergarten teachers, and for nursing teachers.

ability for a teaching position. Evaluation methods are diverse and include written tests of general education and specialized knowledge in the applicant's subject specialty; skills tests in areas such as physical education, music, fine arts, and English conversation; essay tests (most of which question the candidate's dedication to education and awareness of related issues); interviews; aptitude tests; and evaluation of a candidate's past participation in extracurricular and volunteer activities.

In March 1992, 404,504 students graduated from universities with certified teacher training courses. Of this total, 72,553, or 17.9 percent, earned teacher certificates, and 13,424, or 18.5 percent, of those with certificates passed the test and were employed as teachers (see Table 7.12).

Certification Reauthorization

Standard teacher certificates need not be renewed. However, they are rendered invalid if the holder is judged to be incompetent or quasi-incompetent, if the holder is imprisoned for a criminal offense, or if the holder is a member of, or attempts to form, a political party or other organization that supports the overthrow of the government by violent means. The certificate may also be revoked if the holder intentionally breaks the law or commits a grave misdeed.

Special teacher certificates are valid for a period of three to ten years; the exact term is determined by the prefectural board of education. Provisional certificates are valid for three years.

Provisional certificates may be granted only when it is impossible to hire a teacher with a standard certificate. Ordinarily, they are granted to teachers who possess standard certificates for other school categories. At secondary schools, the certificate-granting authorities may permit a teacher without a certificate for the relevant subject to teach said subject for up to a year when a teacher with the proper certificate is unavailable. Further, when there is determined to be a special need in certain areas of a subject, the certificate-granting authorities may appoint as part-time lecturers individuals without a teacher certificate. This is done with the objective of tapping special skills and expertise possessed by individuals outside academia.

TABLE 7.12

Number of Graduates of Universities and Other Institutions with Certified Teacher Training Programs and Number Receiving Teacher Certificates, as of March 1992

Institutions		Number of Graduates	Number of Students Who Received Teacher Certificates
UNIVERSITIES	NATIONAL		
	T.T.U.	19,345	17,182
	Ordinary	67,405	8,230
	Public	10,108	2,328
	Private	307,646	44,213
	Total	404,504	72,553
GRADUATE SCHOOLS	NATIONAL		
	T.T.U.	1,784	1,418
	Ordinary	16,199	1,675
	Public	954	146
	Private	7,874	1,216
	Total	26,811	4,455
ADVANCED COURSES	NATIONAL		
	T.T.U.	267	229
	Ordinary	48	18
	Public	14	13
	Private	294	174
	Total	623	434
JUNIOR COLLEGES	NATIONAL		
	T.T.U.	—	—
	Ordinary	675	27
	Public	4,194	1,676
	Private	152,421	44,641
	Total	157,290	46,347
OTHER		5,283	5,255
TOTAL		594,511	129,044

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

A training program for newly appointed teachers was implemented in the 1989 academic year, based on the Law for Special Regulations Concerning Educational Public Service Personnel. Under this law, appointing authorities have a legal obligation to provide newly appointed teachers with induction training during their first year of work. Individual covered under this obligation include teachers, assistant teachers, and full-time lecturers at national and public elementary schools, secondary schools, and schools for the visually impaired, hearing impaired, and otherwise handicapped. In addition to normal teaching duties (class and subject supervision), newly appointed teachers are required to undergo in-school training for two days a week and training outside school for one day a week. The training covers areas necessary to the fulfillment of a teacher's duties, including basic skills, class management, subject instruction, moral education, special activities, and student guidance.

Concerning in-school training, designated guidance teachers offer guidance and advice to newly appointed teachers with the help of other teachers. Guidance teachers are selected from among a school's vice-principal, teachers, and lecturers (including part-time lecturers). Only teachers with a great deal of experience are chosen for this duty. Out-of-school training includes such activities as lectures, seminars, and hands-on guidance at educational centers; visits to other types of schools, social education facilities, child welfare facilities, and private corporations; volunteer activities; and outdoor activities.

Along with this training, schools with one new teacher are assigned a part-time lecturer for three days a week; those with two new teachers are assigned a full-time teacher. This helps to ensure a lighter work load (class hours, etc.) for the newcomer and for guidance teachers. Necessary costs for induction training, including personnel costs, are borne by whoever implements the induction training program, that is, by the appointing authorities (prefectural boards of education in the case of elementary and lower secondary schools). The national government reimburses compulsory education schools for one-half of related personnel and out-of-school training costs.

Professional Development Opportunities

In recognition of the unique character of their duties, teachers are offered a variety of training-related exceptions that are not available to other government employees.

The law requires teachers to continue training throughout their careers in order to carry out their teaching duties. At the same time, boards of education are charged with the responsibility of planning and implementing teacher training. Three types of training are recognized: professional training, which is considered a necessary part of the job; voluntary training, which is undertaken by the teacher outside of working hours; and work-exemption training, which can be planned independently by the teacher and, if it does not adversely affect school activities and is approved by the school principal, exempts the teacher from the obligation of concentrating on teaching duties while allowing him or her to draw normal pay. Prefectural boards of education play a central role in the implementation of training programs for public school teachers. They are responsible for implementing the following kinds of training:

1. *Induction training:* for all newly appointed teachers with less than one year's experience (90 days a year)
2. *In-service training for experienced teachers:* for all teachers who have completed 5, 10, or 20 years of service
3. *Master teacher training:* for all newly appointed principals and vice principals
4. *Training for newly appointed curriculum coordinators:* for all new curriculum coordinators

For core teachers, there is a long-term dispatch program to help them develop specialized skills and qualifications. Under this program, which may last anywhere from several months to two years, teachers are sent, with pay, to a graduate school or educational research institute. In 1993, plans called for the dispatch of some 1,250 teachers to graduate schools for periods of one-to-two years.

Further, three universities with graduate schools have been set up to ensure opportunities for research and study, primarily for experienced teachers. The three universities are Hyogo University of Teacher Education (founded in 1978), the Joetsu University of Teacher Education (1978), and the Naruto University of Teacher Education (1981).

Municipal boards of education also provide training programs for teachers at public schools that take into account the state of local affairs. The national government, through *Monbusho,* directly implements the following types of training. Its aim is to train school principals, vice-principals, and subject teachers capable of playing a leadership role in each prefecture. (The government also provides support for prefectural training activities.)

1. *Central workshops for intensive in-service training:* for school principals and vice principals (22

days; 800 individuals a year), and for other core teachers (36 days; 1,000 teachers a year) at public schools

2. *Comprehensive colloquium on Course of Study guidelines:* for all teachers at public schools
3. *Dispatch of teachers overseas:* to inspect educational facilities: *for teachers aged 35 or over (1,200 teachers for 30 days and 3,800 teachers for 16 days) and teachers aged under 35 (180 teachers for 60 days)*

In addition, educational research institutes offer a variety of training sessions, and each school has its own unique training program.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Present Concerns for Change and Improvement

Expertise in subject specialty and practical teaching skills needs to be further developed during teacher training. Further, persons with deeper scholarship need to be brought into the educational system.

An in-service training program should also be systematically established to follow the training program for newly appointed teachers. Other issues include the building of linkages between university training courses, in-service training, and (especially) the training programs for newly appointed teachers.

Present and Long-Range Plans for Improvement

The Educational Personnel Certification Law was revised in 1988. As part of efforts to improve practical teaching skills, this act raised certification standards and established the advanced teacher certificate. This certificate, designed with the objective of attracting individuals possessing advanced, specialized expertise in a certain field, has as its basic qualification the completion of a master's degree at a graduate school, and is for teachers at all types of schools, as well as for nursing teachers.

The special teacher certificate was created to bring individuals from society at large, possessing special skills and expertise, into the educational system. The special part-time lecturer program was established to make it possible to hire part-time lecturers without teacher certificates.

Concerning in-service training, the induction training program was established in the 1989 academic year. In addition to the traditional prefecture-managed training programs undergone by all teachers after completion of five years of service, starting in the 1993 academic year, the national government established two kinds of subsidies for training for teachers who have completed 10 and 20 years of service, respectively. The government also established a subsidy program that will allow local boards of education to carry out systematic certification seminars, helping teachers with second-class teacher certificates to obtain first-class certificates.

8

Teacher Training and Professional Development in Korea

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CONTEXT

Since the liberation in 1945, education in the Republic of Korea has made remarkable progress in quantity. The quantitative expansion has taken place in the increase of the schools, in student population, and in growth in the number of teachers. The expansion of elementary school, middle school, high school, and higher education from 1945 to 1993 is outlined in Table 8.1.

Qualitatively, however, much progress has not been made in tandem with the rapid quantitative growth. During the past five decades, every effort has been made to solve educational problems and to upgrade the quality of education. Innovative efforts, especially to streamline the education system, have been carried out since the 1980s. The focal point has been placed on elevating the quality of education through a shake-up of the education system, and on improving the conditions of education. The present school ladder system follows a singular track of 6–3–3–4. Elementary school, middle school, high school, and college and university constitute the skeleton of the school system. This is illustrated in Figure 8.1.

Definitions

The terms of schooling are six years in elementary school, three years in middle school, three years in high school and four years in college and university. Elementary and middle schooling is provided to all children, compulsory and free of charge. General information on schooling in Korea in terms of grade levels and student age ranges is presented in Table 8.2.

In 1993, about 13,000,000 children and youth were enrolled in about 10,000 schools. The number of schools and students is shown in Table 8.3. The percentage of students in the total population is about 30 percent. The student population portion of non-government school sectors is becoming higher than that of government school sectors as school levels increase. This means that private schools contribute much to the development of education. The entrance rate of students and school enrollment ratio in each level of schools is growing steadily (see Table 8.4). Table 8.5 shows the graduation rate of students by level of schooling and the percentage of female students graduating.

TABLE 8.1
Quantitative Expansion of Education by Enrollments, 1945–1993

	Elementary School		Middle School		High School		Higher Education*	
	1945	1993	1945	1993	1945	1993	1945	1993
Schools	2,834	6,057	166	2,590	307	1,757	19	655
Teachers	19,729	139,159	1,186	97,131	1,720	96,698	1,490	51,277
Students	1,366,024	4,336,252	80,828	2,410,874	40,271	2,069,210	7,819	2,099,735

*Higher education includes colleges and university, junior colleges, graduate school, miscellaneous school, air correspondence college, and open college.

TABLE 8.2
Definitions of Schooling

School Type	Grade Levels	Student Age Range
Pre-elementary	—	4–5
Elementary	1–6th grade	6–11
Secondary	7–9th grade	12–14
Postsecondary	10–12th grade	15–17
Preservice teacher preparation	13-16th grade	18–21

TABLE 8.3
Number of Schools and Students

		Schools			Students	
	Total	National & Public	Private	Total	National & Public	Private
Kindergarten	8,515	4,514	4,001	467,380	113,332	356,048
Elementary	6,057	5,981	76	4,336,252	4,268,860	67,392
Middle School	2,590	1,890	700	2,410,874	1,794,587	616,287
High School	1,757	864	893	2,069,210	787,827	1,281,383
Higher Education	655	134	521	2,099,735	712,682	1,387,053

TABLE 8.4
Student Entrance Rates and Enrollment Ratios

	Middle School		High School		Higher Education	
	Entrance Rate	Enrollment Ratio	Entrance Rate	Enrollment Ratio	Entrance Rate	Enrollment Ratio
1970	63.8%	51.2	70.9%	28.1	34.5%	8.8
1980	96.8	95	84.8	63.5	47.1	16
1990	99.5	96.9	91.3	87.6	54.4	38.1
1992	99.6	97	96.2	89.2	62.5	46.8

Note: *Educational Indicators in Korea* (KEDI), 1992.

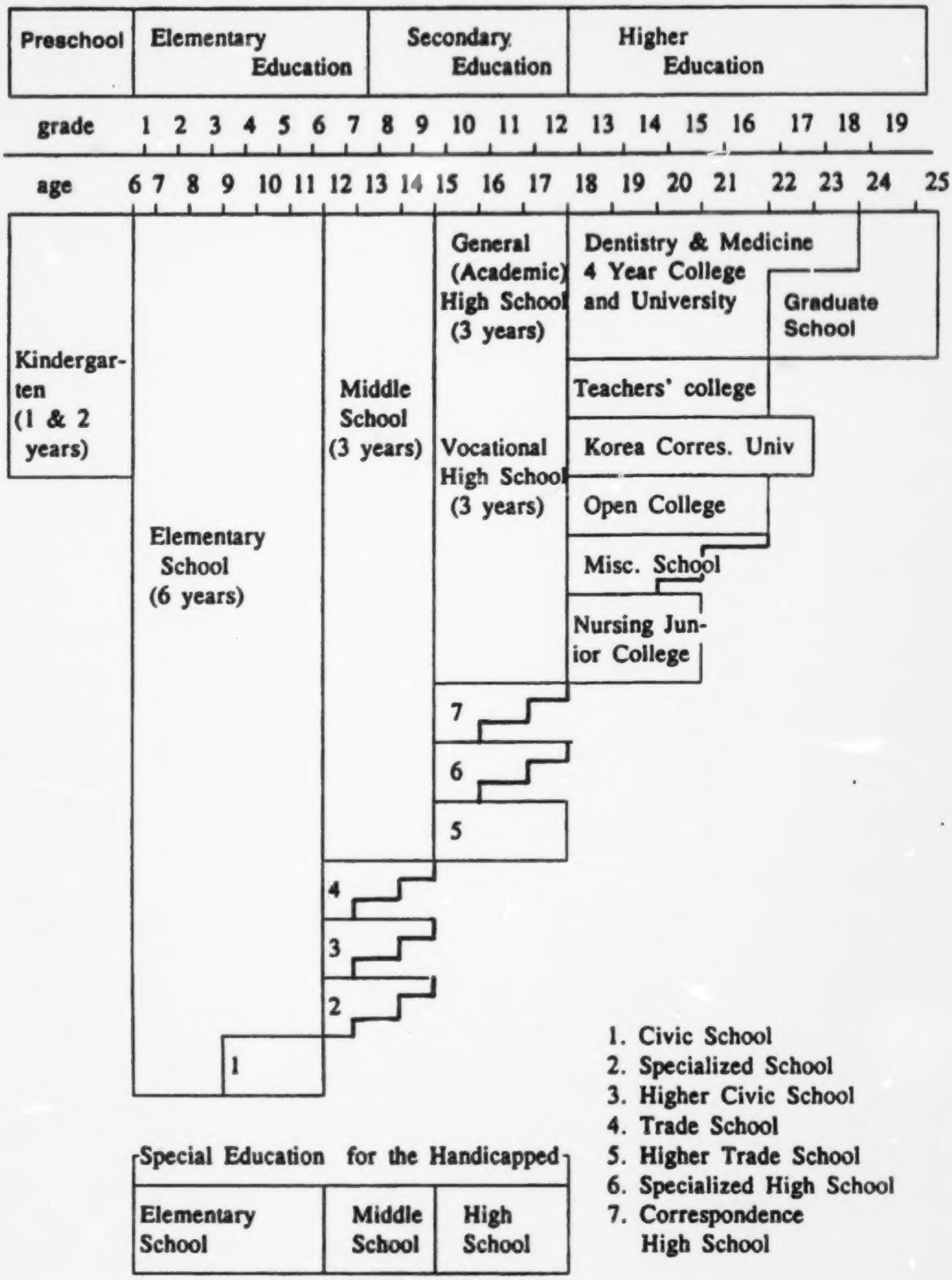
Preschool
Elementary Education
Secondary Education
Higher Education
grade 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
age 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
Kindergarten (1 & 2 years)
Elementary School (6 years)
Middle School (3 years)
General (Academic) High School (3 years)
Vocational High School (3 years)
Dentistry & Medicine
4 Year College and University
Graduate School
Teachers' college
Korea Corres. Univ
Open College
Misc. School
Nursing Junior College
1
2
3
4
5
6
7
Special Education for the Handicapped
Elementary School
Middle School
High School
1. Civic School
2. Specialized School
3. Higher Civic School
4. Trade School
5. Higher Trade School
6. Specialized High School
7. Correspondence High School

FIGURE 8.1
School system in Korea.

TABLE 8.5
Student Graduation Rates by School Level and Percentage of Females Graduating

	Elementary		Middle School		High School	
	Total (%)	Female (%)	Total (%)	Female (%)	Total (%)	Female (%)
1970	89.4	—	93.2	94.9	90.7	93.5
1975	90.4	90.4	92.7	93.9	94.8	97
1980	94.1	94.2	97	98.4	94.4	98.4
1985	97.7	97.9	96.9	100	92	94.7
1991	99.4	99.5	97.8	97.7	94.3	96.5
1992	98.9	99	97.7	97.9	94.5	96.7

TABLE 8.6
Percentage Distribution of Population by Educational Attainment

	Elementary (%)	Middle School (%)	High School (%)	Colleges & University (%)
1975	65.5	14.8	13.9	5.8
1980	55.3	18.1	18.9	7.7
1985	43.4	20.5	25.9	10.2
1990	33.7	18.9	33.2	14.2

TABLE 8.7
Expected Levels of Education for Children

	Son				Daughter			
	Middle School (%)	High School (%)	College &. Univ. (%)	Graduate School (%)	Middle School (%)	High School (%)	College &. Univ. (%)	Graduate School (%)
1977	7.5	36.2	55.5	0.8	23.7	42.7	33.3	0.3
1987	1.6	13.9	60.5	24	4	25.6	55.1	15.3
1990	1.6	12.1	61.9	24.4	3.9	20.4	61.3	14.4

Source: National Statistical Office, *Social Indicators in Korea*, 1991.

Percentage distribution of population by educational attainment has been greatly improved (see Table 8.6). The total average years of educational attainment was 9.20 as of 1990. It is noteworthy that the average number of years of educational attainment for those 20–29 years old is 12.05. This is the result of the strong desire of people for education and the supportive policy measures of the government. Table 8.7 shows the expected levels of education for children for 1977–1990. Most parents want their children to complete college and university and graduate levels.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

See Tables 8.8 and 8.9 for statistics on trends in teachers' average age and years of teaching experience, and on the percentages of female teachers, from 1965–1992. As shown in Table 8.9, the percentage of female teachers has increased as time passes. The percentage of female teachers will become higher in the future in line with greater efforts at industrialization. The academic attainment level of teachers is at least 16 years of schooling, because teachers' certificates are provided to those who have completed our four-year teachers' college and college of education, or to those who have attained an equivalent level of academic achievement.

Since 1953, 11 national teachers' colleges, located in each province, have been the main source of supply for prospective elementary school teachers. Secondary school teachers have been produced from the colleges of education, which are, in most cases, attached to universities. At present, 35 colleges of education produce prospective secondary school teachers. In 1953, Provision 11 of the Law on the Educational

TABLE 8.8

Trends of Teachers' Average Age and Teaching Experience by School Level

	Elementary		Middle School		General High School		Vocational High School	
	Age	Years of Teaching	Age	Years of Teaching	Age	Years of Teaching	Age	Years of Teaching
1970	33.2	11.3	35.3	10.1	36.7	10.9	35.8	9.5
1980	36.5	15.8	35.6	11.8	36.6	12.3	35.5	11
1990	40.3	18.7	36	11.3	37.1	12.5	37.5	12.4
1992	41	19.1	36.7	12.4	38.3	13.4	38.2	13.1

TABLE 8.9

Percentage of Female Teachers by School Level

	Elementary (%)	Middle School (%)	High School (%)	Junior College & University (%)
1965	25.5	16.1	8.9	11.9
1970	29.1	18.6	9	12.6
1975	33.7	25.1	12.7	14.5
1980	36.8	32.8	17.1	15.7
1980	36.8	32.8	17.1	15.7
1985	43.1	38.5	20.4	17.7
1991	51.6	47.6	23.3	20
1992	52.4	47.7	23.2	20.5

TABLE 8.10

Monthly Salary of Elementary and Secondary School Teachers by Salary Step, 1993 (in U.S. dollars)

Salary Step	Monthly Salary	Salary Step	Monthly Salary	Salary Step	Monthly Salary	Salary Step	Monthly Salary
1	$325	11	$439	21	$651	31	$914
2	336	12	452	22	676	32	942
3	346	13	473	23	702	33	971
4	357	14	494	24	727	34	999
5	367	15	516	25	753	35	1,0267
6	378	16	538	26	779	36	1,053
7	390	17	561	27	804	37	1,079
8	402	18	583	28	830	38	1,106
9	414	19	606	29	858	39	1,132
10	427	20	628	30	886	40	1,158

Public Service prescribed that graduates from the national education institutions be given preferential treatment in the recruitment process in government primary and secondary schools. Thus, most graduates from private colleges of education could be recruited into private schools; they were unlikely to obtain teaching positions in public schools. But in 1991, the Constitutional Court decided that this teacher recruitment policy violates the equal opportunity principle solemnly guaranteed in Constitutional Law. The teacher recruitment policy has been revised, or improved, to ensure equal opportunity for competent, prospective teachers through open competition.

Characteristics of Teaching Employment

The teacher compensation system has been changed several times in terms of its salary tables, various allowances, and fringe benefits, in accordance with the financial conditions of the Government and community support. During the past four decades, the mainstream of the salary schedule has been developed toward the single-salary schedule. In other words, every teacher with the same kind of teaching license and teaching experience receives the same amount of salary and allowance, regardless of whether he or she works in elementary, middle, or high school (Table 8.10 shows 1993 figures for monthly salaries for elementary and secondary school teachers). In general, the starting salary step for the beginning teacher who graduates from teachers' colleges or colleges of education is number nine. (Table 8.10 shows only fixed pay; various allowances are not included. Professors in colleges and junior colleges are paid according to different salary tables.)

The teacher salary schedule includes monthly pay that is fixed plus several allowances. Besides the monthly salary, additional allowances are paid on a monthly basis, within the limits of budget, as bonuses, teaching allowances, family allowances, schooling expenses for children, allowances for special-area service, special-duty allowances, allowances for overtime work, and so on. Teachers also have fringe benefits, such as medical insurance, pension, schooling expenses for children, loans for housing, and before and after leave for childbirth (about two months for female teachers).

The Korean Teachers' Mutual Fund is an organization that oversees the welfare of teachers and provides them with financial security so that they can devote themselves fully to their profession. The Teachers Pension Fund of Private School Teachers is the equivalent organization for private school teachers. The Korean Federation of Teachers' Associations (KFTA) is recognized by the government as the only legal organization for the teaching profession. In 1952, this organization joined the World Confederations of Teaching Profession (WCOTP) as a full member, and has participated in various types of activities. However, some teachers who were discontent with the conservative activities of KFTA independently formed the National Council of Teachers, which later became a teachers' union, in 1990. Under the slogan "True Education," these teachers advocated collective struggles for teacher salary increases, the improvement of deteriorated conditions of teaching, and democratization of the educational leadership. They also demanded the right to exercise collective bargaining, and even to strike (with the provision that they would first ask the permission and cooperation of other professional teachers' organizations). The government disagreed and dismissed about fifteen hundred teachers from their teaching posts on the grounds that they had violated the laws and generated negative public sentiment. After four years, the government allowed almost all of these dismissed teachers to return to classrooms, on the condition that they secede from the labor union movement. Even though the government does not recognize the labor union movement of teachers, the union was enrolled as a member of EI (Education International) in 1993.

Since 1992, KFTA has engaged in collective bargaining with the Ministry of Education (MOE) on issues such as salary increases, teaching conditions, retirement and health insurance policies, and so on. As mentioned above, during the past decades, the teacher recruitment policy was overreliant on national institutions, discriminating against private institutions. But the recruitment of teachers is now carried out on an open, competitive basis in order to induce more highly qualified teachers, regardless of their gender, birthplace, college of origin, or other considerations, into the teaching profession. And recruitment is based on a variety of criteria—such as written examinations, college records, teaching skills, and personality—to induce bright, prospective teachers in each provincial area.

Annually, about 7,000–8,000 teachers are recruited. In 1993, 7,381 teachers were recruited into primary, middle, and high schools. New teacher demand is, at most, about 7,000 teachers yearly, even though about 57,000 prospective teachers are available. Accordingly, the MOE tries every year to secure a larger educational budget in order to recruit more teachers into the teaching profession.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

Institutes responsible for teacher education vary in type and level. Kindergarten teachers are usually trained by junior vocational colleges; elementary school teachers by teachers' colleges; and secondary school teachers by colleges of education and general colleges and universities. These institutions supply nearly 30,000 teachers annually. Appropriate licenses for teaching are awarded to those who graduate from these institutions.

Some kindergarten teachers are trained by four-year colleges and junior vocational colleges, as well as by colleges conducting courses through audiovisual media and correspondence. Elementary school teachers are trained by 11 four-year national teachers' colleges. Secondary school teachers must be graduates of colleges of education (there are 12 national colleges of education in the Republic of Korea); of education departments or teacher education courses in colleges and universities; or of Master of Education programs in graduate schools of education. The entrance examination for teachers' colleges and for colleges of education has changed, and now includes an aptitude test and an interview. Colleges and universities, apart from offering courses in teacher preparation institutes, also offer teacher education programs to supplement the supply of teachers in secondary schools. These programs provide an alternative path for students enrolled in other programs to receive teacher training.

Graduate schools of education were established to upgrade the professionalism of teachers by providing exposure to research-based, in-depth studies. They offer day and evening classes during designated seasons so that teachers can attend at a time convenient for them. Special teachers for the handicapped are educated according to the level of schools where they are expected to teach. Apart from the subjects of specialization, they are also exposed to courses aimed at improving their teaching, relevant to the targeted audience. School librarians must be graduates of universities and colleges with a major in library science. Nurses are qualified to become teachers by graduating from junior colleges or from a university, and by obtaining an RN license.

Policy Guidance

The guiding policy of teacher preparation and in-service training is to improve professional competency and develop a sense of commitment to the teaching profession based on sound views of education. The organization responsible for teacher policies is the Teachers Affairs Bureau in the Ministry of Education at the national level.

Accreditation/Approval

There is no formal accreditation system for teacher preparation programs. But some specialists and professionals have been very emphatic about the need for teacher preparation program accreditation to become a part of the college and university accreditation system, and there are plans to put this idea into practice in 1997.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

The goals of teacher education are to develop professional competency in prospective teachers in order to establish high-quality education. As mentioned above, teachers' colleges train elementary school teachers, and colleges of education produce students for teaching at secondary schools. Korea National University of Education (KNUE) was inaugurated in 1985 with the specific goal of producing a corps of teacher elites dedicated to teaching and in-service training for teachers.

Academic Preparation Prior to Preservice Teacher Education

In Korea, candidates for all colleges and universities must pass entrance examinations in the form of scholastic aptitude tests conducted by the National Board of Educational Evaluation. Scholastic achievement in high school comprises 40 percent of the total score which candidates must achieve to gain entrance to colleges and universities. In addition, candidates for teachers' colleges or colleges of education must take an aptitude test and undergo an interview, which account for 10 percent of the total score.

Nature and Content of Preservice Teacher Preparation Curricula

The curriculum of teachers' colleges consists of required and elective courses. The former include general subjects (national ethics, Korean language, the history of civilization, problems in Korean society, natural science, mathematics, and a foreign language) and professional education subjects geared to raising the professionalism of teaching. Elective courses include a variety of subjects.

The curriculum of colleges of education is composed of general humanities subjects and specialized subjects, which, in turn, are divided into required and elective subjects. The former are intended to produce broadly informed teachers, whereas the latter focus on specific skills associated with teaching. Students are also encouraged to specialize in a discipline of interest to them, for up to 21 credit hours. A four-week period of teaching practice is included in the curriculum of teachers' colleges and colleges of education. In general, each college of education has an elementary school, a middle school, and a high school attached to it. Teachers' colleges are attached to an elementary school, where the students are required to complete at least four weeks of on-the-job training. In the course of teaching practice, a student teacher must complete an internship, which includes observation of class instruction, actual teaching, and performance of attendant duties.

ON-THE-JOB TRAINING AND DEVELOPMENT

In-service teacher training aims at improving educational expertise, enhancing the quality of the teaching profession, and encouraging a sense of commitment. In-service training is offered in five categories: qualification training to obtain credits for promotion; general training to broaden overall knowledge in educational theories and practices; induction training for new recruits to acquaint them with the profession; refreshment training for in-service teachers to improve performance of teaching duties; and special training, in the form of study at KNUE for two years in master's programs.

Qualification training is the responsibility of teacher training centers established in each provincial area. It requires trainees to complete a minimum of 30 days (180 hours) of training to be certified for promotion. It takes at least 10 days (60 hours) of training to complete a general in-service. Task-specific programs vary in duration, depending on their goals and contents. An induction program is offered under the direct supervision of the provincial or municipal office of education. The National Institute of Educational Research and Training provides a variety of refreshment programs targeted for educational administrators and school managers. Teachers are provided with scholarship opportunities for overseas study in order to observe teaching practices and familiarize themselves with other educational systems. This program has proved to be effective in developing a global outlook on education and in sensitizing teachers to their responsibilities. By and large, it has had a positive impact on teachers' morale. Foreign language teachers are sent to countries where their specialization languages are spoken, and attend programs there to improve their skills in verbal communication. In-service training programs for 1992 are listed by training institute in Table 8.11.

Professional Development Opportunities

Teachers must participate in in-service training in order to qualify for higher-ranking licenses; therefore, the qualification training program is very popular among teachers, because it gives them an opportunity for career advancement. However, some teachers avoid or have negative views of general in-service training for their voluntary professional development. There are no particular incentives or benefits offered for such training, such as salary increases of the kind that can be obtained through higher-ranking licenses.

LICENSING

Classification of Teachers

In order to ensure the professionalism and the public accountability of teachers, graduates of teacher preparation programs are required to be licensed according to criteria established by law. Teachers are classified according to the following categories: Grades 1 and 2 teachers (i.e., of the first- and second-degree category, rather than school grade level); assistant teachers; special education teachers; librarians; teachers for skill practices; and nursing teachers. Each category must meet specific qualification criteria, established in Clause 1, Article 79, of the Education Law. In accordance with these criteria, each prospective teacher is licensed by the Minister of Education.

Teacher certificates, or licenses, are valid throughout the teacher's lifetime. The main frame for teacher licensing is divided into four hierarchical categories: Grade 2 teachers, Grade 1 teachers, vice-principals, and principals. (This hierarchy is illustrated in Figure 8.2.) Most beginning teachers enter the profession as Grade 2 teachers and are not subject to a probationary period.

Status of Qualifying Conditions

Teachers can acquire a higher-ranking license after completion of 180 hours of in-service training programs; higher-ranking licenses provide teachers with better positions, more responsibilities, and added prestige. For

TABLE 8.11
In-service Training of Teachers by Training Institute, 1992

Training Institute	Training Programs	Trainees	Total
Central Educational Research & Training Institute	General training	1,925	3,809
	Professional training	681	
	Other training	1,203	
Regional teacher training institutes	Qualification training	9,475	26,963
	General training	8,447	
	Other training	9,041	
Elementary teacher training institutes	Qualification training	2,005	2,230
	General training	225	
Secondary teacher training institutes	Qualification training	179	257
	General training	78	
Comprehensive teachers' training institute	Qualification training	1,255	1,437
	General training	182	
Training institutes designated by MOE & Board of Education	Qualification training	2,828	29,131
	General training	26,303	
Overseas observation	Observation visit	3,217	3,759
	Speciality training visit	542	

Source: Education in Korea (MOE), 1992–1993.

example, when Grade 2 teachers obtain Grade 1 teachers' licenses, they are eligible for promotion to head teacher positions, a stepping stone to vice-principal or school supervisor positions at the Education Office (see Fig. 8.2). And when Grade 1 teachers obtain licenses for vice-principal, they can qualify for appointments as principal. In this sense, the teacher licensing system is geared more toward professional advancement than it is toward professional development.

Promotion and transfer policy is specified in official regulations for the civil service in the education sector, in the sections concerning promotion and performance appraisal. Promotion to higher positions or transfer to other administrative positions requires applicants to have good career evaluation records, performance appraisals, a record of in-service training, and extra, additional points. Career evaluation records refer primarily to seniority, whereas performance appraisal, in-service training, and additional points are based mainly on merit. In general, teachers with significant teaching experience tend to rely on seniority for promotion, while teachers with little experience prefer the merit system. The conservative climate of educational circles in the Republic of Korea promotes a preference for seniority as a gage of teacher qualification for advancement. The opportunity for promotion often goes to "inside" candidates rather than to "outside" ones. In a sense, this means that administrative or supervisory positions are not widely publicized, and that qualified candidates are seldom made aware of the vacancies.

Grade 2 and Grade 1 teachers and vice-principals may work up to 65 years of age before retirement, as long as they serve with good records. However, since 1992, principals can hold office only for four years, and can be reappointed for one additional term. The term system of principalship was introduced on the basis of the recommendation of the Central Council of Education as a response to overwhelming numbers of teachers applying for promotion to principal, and also in an attempt to curb the authoritarian leadership styles of some principals. The school supervisors who are promoted from within the ranks of experienced teachers are very popular among teachers. Recently, there have been efforts in most provinces to recruit new school supervisors through open competition. In some provinces, supervisors, vice-principals, and principals can be transferred interchangeably.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Present Concerns for Change and Improvement

It is imperative to lure competent teachers into the teaching profession and to encourage and maintain their professional development in order to upgrade the quality of education. But there are many obstacles associated with teacher preparation and professional develop-

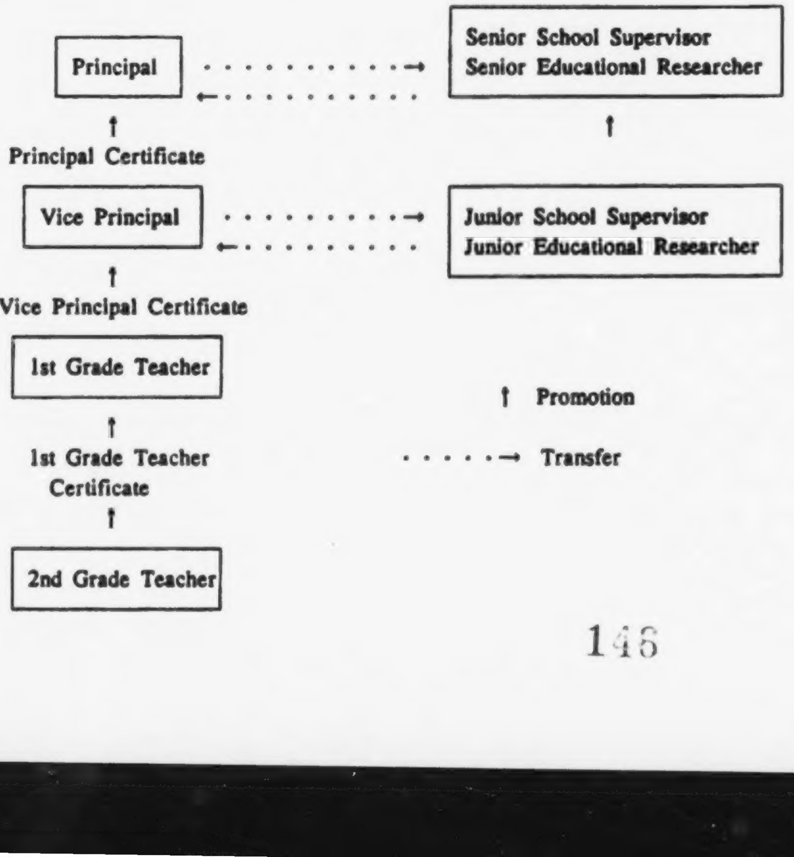

FIGURE 8.2
Teacher certificate and promotion system.

ment that must be overcome in order to solve the problems related to licensing, promotion, in-service training, teaching conditions, salary, social expectations, and so on. There are many issues and problems that should be resolved.

First of all, teacher education institutions do not offer enough teacher specialization courses. Teachers' colleges and colleges of education are hardly differentiated, in terms of program contents and methods, from the teacher education courses in general colleges and universities. This means that the identity of teacher education institutions is not fully reflected in the training programs. Some see this as a good reason to discontinue their operations. As was also pointed out, there are too many teacher education institutions and courses and they produce overwhelming numbers of prospective teachers, especially in the case of colleges of education and teacher education courses in general colleges and universities.

Second, in-service training does not give enough impetus to professional development. After their recruitment, teachers would greatly profit from professional development in the form of systematic in-service training, in order to develop knowledge and skills associated with teaching, student guidance, classroom management, and so forth. As mentioned above, Grade 2 teachers can become Grade 1 teachers after completing in-service training. But once they become Grade 1 teachers, most of them, with the exception of those who become vice-principals, continue teaching until retirement without considering the advantages of further professional development. This means that most teachers complete in-service training exclusively for career advancement rather than from intrinsic motivation for developing professional competency.

Third, teachers are more concerned with promotion than with teaching. It is not an exaggeration to say that most teachers are only interested in administrative or supervisory positions, particularly teachers with the most seniority. For instance, Grade 1 teachers who have significant teaching experience want to be promoted to vice-principal, or to be transferred to a school supervisor position. Compared with the pyramid structure of hierarchies in other occupations, the structure of the teaching profession is flat. Accordingly, only 10 percent of classroom teachers can look forward to promotion or transfer. Thus, those who fail to be promoted to administrative positions are often looked on as incompetent teachers, even though they may be excellent classroom teachers with considerable teaching experience. This results in dissatisfaction and frustration on the part of many competent teachers, and hinders the advancement of professional development.

This strong status-oriented tendency has much to do with authoritarian and bureaucratic administration, as well as with centralized administrative power. In addition, this kind of climate could be attributed to the irrational teacher licensing system, in which the teaching professions are mixed with the management functions. In other words, classroom teachers such as Grade 2 teachers and Grade 1 teachers occupy a lower position, and administrators like vice-principals and principals are in a higher position. Thus, teachers see themselves in a humble position, and administrators consider themselves fortunate to have escaped it.

Fourth, teachers are stymied by heavy teaching loads. Above all, this situation comes from unmanageable class sizes. According to 1992 estimates, there were 32.8 students for every teacher in elementary schools, 24.5 students per teacher in middle schools, and 22.1 students per teacher in high schools. The large number of students per class (39.9 in primary, 48.6 in middle, 49 in high school) is the source of the increasing teacher's load. In urban areas, classrooms are even more crowded. These figures compare unfavorably with those of the more advanced countries. Heavy teaching loads may be better illustrated by the number of teaching hours per week. In 1993, elementary school teachers worked 26.0 hours per week, middle school teachers 17.0 hours, and high school teachers 16.0 hours. Besides the regular teaching hours, teachers spend additional hours for supplementary or enrichment teaching programs, and are also burdened with a considerable paperwork load. These adverse conditions have their roots in a shortage of funds in the education budget. Despite the rapid expansion of the student population, the government has allocated only small amounts to education, under the pretext of concentrating limited financial resources on economic development, national defense, and social development.

Fifth, economic compensation for teachers is low. In general, teachers are well respected by students and their parents, and the teaching profession has been regarded as good job, with a high reputation. The public recognizes that teachers make a great contribution to society, but they are not compensated for this contribution. This situation is one of the factors that leads to low job satisfaction for teachers.

Teachers also perceive that their socioeconomic status has been lowered compared with the situation in the past, and perhaps as a consequence of industrialization, even though their job contributes significantly to social progress and national development. This poor conception of themselves as teachers can consequently lead to a lack of commitment to teaching. The salary level of beginning teachers is not low compared with that of other occupations. However, the salary level of experienced teachers who have served a long time in the teaching profession is low compared with the salary level of other occupations.

Since 1960, salary levels have increased disproportionately in comparison to teachers' salaries—for civil servants employed, for example, in the state-owned banks, or as high-ranking public officials. Fortunately, efforts by the government—the levying of an education tax in 1982—have resulted in a steady increase in the general level of teachers' pay. Nonetheless, present salary levels fail to provide enough incentive for teachers to increase their professional development experience and expertise.

Finally, supportive administration for teaching has been insufficient. Administrative authorities should support and encourage teachers' educational activities; this should be their driving force. But the rapid growth of the student population and the expansion of the teaching profession has brought with it a growing tendency to rely on controlled supervision, allowing bureaucracy and authoritarianism to take hold. It goes without saying that the centralized model in political, economic, social, and cultural affairs has both directly and indirectly influenced educational policy formation, implementation, and governance. Elementary and secondary school teachers—numbering more than 300,000 across the nation—comprise a formidable force, and they cannot be ignored. The very limited range of teacher autonomy and control over their teaching situations has left them with no alternative than to submit to the administrative authorities. This was one of the motives that led militant teachers to organize and participate in teacher labor unions advocating the reformation of administrative leadership in education. Fortunately, this authoritarian leadership and conservative, centralized administrative system has been gradually improved since the late 1980s.

Present and Long-Range Plans for Improvement

Korean education is expected in the future to play a more important role in national development, as well as in individual self-actualization. The teacher is one of the most crucial elements in education. In this sense, it is imperative to reform the teacher preparation and professional development system. The major thrust of reform efforts should be directed toward streamlining the professionalization process for teachers in all related areas—preservice education, the licensing system, inservice training, teaching loads, socioeconomic status, and administration and finance.

First of all, specification of teacher education institutions is needed. It is essential that the curriculum of elementary and secondary schools be directly linked to the programs of the teacher education institutions. And teacher training programs should emphasize the development of a well-rounded character, a moral consciousness, and a sense of commitment to the teaching profession. In addition, the structure of the teaching faculty in colleges of education should be realigned by adding subject-matter specialists to the teaching staff, so that programs will be characterized by a greater emphasis on subject matter.

Second, periodic in-service training is needed. The present main stock of in-service training is qualification training and general training. As mentioned above, qualification training, which leads to career advancement, is presently the most popular program among teachers. Inservice training should be similarly compensated, with effects for teachers' salaries and for their promotion opportunities, and teachers should be provided with more opportunities to voluntarily participate in professional development initiatives periodically, to enhance their skills and competence levels and to keep pace with rapidly developing trends in the different disciplines of teaching methods. It is also necessary to renew teachers' license periodically, through in-service training.

Third, it is urgent that a new teaching-oriented licensing system be established, reforming the current management-oriented licensing system, both to discourage administration-driven teacher expectations and to expedite professional development. One proposal, recommended by KFTA, would be to replace the present system with Grade 2, Grade 1, senior, and master teacher categories, eliminating the vice-principal and principal positions. This type of ranking is the one most often found in research institutes or colleges. The creation of these new categories would mean a change also in the roles, salaries, teaching hours, and fringe benefits of teachers. Under a new system like this, principals could be appointed from among senior and master teachers.

Fourth, optimization of teaching loads is urgent. Teaching loads should be optimized to provide extensive and high-quality teaching. This must begin with reducing class size, bringing it into line with levels in advanced countries. The Presidential Commission for Education Reform (PCER) recommended that teaching hours per week should be gradually decreased, to a point that makes it possible to individualize instruction and increase teaching effectiveness. In elementary schools (where a teacher is responsible for all subject matter, unlike in secondary schools), teaching hours could be reduced through a partial implementation of departmentalization in music, arts, and physical education. It is also necessary to relieve teachers' overloads of administrative, clerical, and non-educational chores through employing teachers' aides.

Fifth, improving the socioeconomic status of teachers could make the teaching profession more attractive and is directly linked to the quality of education. To ensure a high motivation for teachers toward teaching, before anything else, increasing their monthly salary level is crucial. At the least, the salary schedule, allowances, and fringe benefits should be adjusted to be competitive with those of other occupations. To raise the social and economic status of teachers, special legislative actions are in order. The PCER and KFTA have recommended the enactment of special legislation, known as the Act for Attracting Qualified Teachers. Japan is a case in point. In 1974, the Japanese Government enacted similar legislation and salary levels have improved remarkably as a result.

Finally, administrative and financial support is also needed. Autonomy should be granted to schools to encourage teachers to plan and solve their own problems outside central control. The MOE and BOE should delegate as many of their functions and powers as possible directly to schools and teachers themselves.

Traditionally, the custom has been for Korean education administration to work from a centralized, authoritarian model, but their function should instead be one of support. To provide adequate support, efforts should be made to train professional administrative personnel, to introduce updated management techniques, and to increase provisions of materials and means involved in teaching. Teachers should also be encouraged to participate in the decision-making processes related to school management since their experiences with teaching and its related activities form a pool of ideas to be drawn on. Efforts also should be intensified to secure financial stability in order to meet the additional financial requirements needed for salary increases and for reducing the workload of teachers, and so on.

During the last five decades, teacher training and professional development policies in Korea have been affected by the surrounding social context, especially by the top-down, rigid, political management system, and also by economic conditions. The rigid control in particular resulted in uniformity in all areas of teaching policy, such as teacher preparation, recruitment, licensing and promotion, in-service training, and administrative system. Economic conditions directly influenced salary, teaching conditions, and so on. With the fast-approaching 21st century in view, feasible alternatives and strategies for professional competence of teachers should be developed and implemented.

9

Teacher Training and Professional Development in Malaysia

Submitted by: Teacher Education Division, Ministry of Education

CONTEXT

Definitions

Table 9.1 provides information for definitional purposes.

Educational Systems and Student Population

The educational system can be described as follows:

- Primary Schooling: 6 years
- Lower Secondary: 3 years
- Upper Secondary: 2 years
- Upper Six ("A") level): 2 years

Enrollment of students in government schools is:

- Preschool: 26,000
- Primary School: 2,705,966
- Secondary Schools: 1,449,873

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

Age limit for training: Basic Course—27 years old and below; PostGraduate Diploma in Education—35 years old and below; Gender (Intake)—60 percent Female; 40 percent Male.

Level of academic attainment: Basic Course—"O" level with five credits; PostGraduate Diploma in Education—a recognized first degree with "O" level certificate.

Categories of Teachers: Based on academic qualification.

Recruitment of Teachers:

1. Applicants sit for teachers' qualifying test.
2. Those who pass attend an interview.
3. Selected applicants undergo a 2.5 year training program (Basic Course). For postgraduates, the training program is one year. Both courses include a semester of practicum.
4. After graduation teachers are placed on probation from 1 to 3 years before being confirmed as qualified teachers.
5. Teachers are trained for regular academic schools and also for vocational and technical schools.

Characteristics of Teaching Employment

Nongraduate teachers starting salaries: RM592.00–RM 1,740.00.

Graduate teachers starting salaries: RM 1,075.00–RM2,979.00.

Benefits: Accrue to all qualified teachers, and include medical, housing loans, and car loans.

Pension: All qualified teachers are pensionable and are considered government employees.

Teachers' Unions: Included by the government in discussions relating to teachers' welfare, but with no direct influence on the decisions taken.

TABLE 9.1
Definitions of Schooling in Malaysia

Typically, How Do You Define:	In Terms of Grade/Levels	Age Range of Students	Type and Level of Education Required to Teach at This Level
Preprimary schooling	Preschool	4–6 years	Trained & untrained "O" level
Primary schooling	Years 1–6	6–12	Trained & certificated teachers—"O" level
Secondary schooling	Forms 1–5	13–17	Bachelor's Degree plus 1 year Post Graduate Diploma in Teaching or Certificate of Teaching plus Bachelor's Degree
Postsecondary (Form Six & matriculation)	Full certificate and statement	18–20	Bachelor's Degree plus 1 year Post Graduate Diploma in Teaching or Certificate of Teaching plus Bachelor's Degree
Preservice teacher preparation	Excellent, credit pass and fail	20–35	Bachelor's Degree plus 1 year Post Graduate Diploma in Teaching or Certificate of Teaching plus Bachelor's Degree

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

Teachers are trained according to level and subject; that is, for primary and secondary schools, and also for the various subjects.

All teacher preparation programs are conducted by the government, and all costs are borne by the government. The annual expenditure for the Teacher Training Division is approximately RM214,314,802.68.

Policy Guidance

The Teacher Education Division of the Ministry of Education is the main agency responsible for the training of all types of teachers.

Accreditation/Approval

All teacher preparation programs come under government supervision and are conducted at government teacher training colleges and universities.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

- Strive toward national unity
- Develop national pride and identity
- Uphold democratic ideas and ideals
- Foster social consciousness
- Cultivate competencies in effective communication
- Promote international understanding regarding politics, ecology, cultures, and mankind

The qualities that are fostered among teacher trainees are the improvement of knowledge, skills, and attitudes in the professional and academic fields of the teaching profession.

Academic Preparation Prior to Preservice Teacher Education

Basic Course: Candidates who are of sound physical and mental abilities, and who possess the necessary number of subject credits from the National Examination ("0" Levels).

Post Graduate Diploma in Education: Candidates who are of sound physical and mental abilities, and who possess the recognized necessary degree qualification in the subject area of training, and "0" level education.

Factors given weight in candidate admittance are academic excellence, co-curricular and special achievements, communication abilities, and personality traits. Allocation and number of intake for teachers annually into teacher training colleges are based on teacher requirements, determined by government agencies.

Differences in the Nature and Content of Teacher Preparation Programs

Teacher Education in Malaysia is organized at the following two levels:

University: Conducting one-year Post Graduate Diploma in Education courses and the four-year Bachelor of Education Program.

Teacher training colleges: 2.5 years of Basic Primary Teacher Training; 2.5 years of Basic Non-Graduate Secondary School Teacher Training; and one year of Post Graduate Diploma in Education courses.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

The centralized system of education in Malaysia requires the linking of the Teacher Education Curricula to the national schools' curricula (primary and secondary). Linkages are made via national curriculum bodies at the policy and implementation stages.

LICENSING

Authority to teach: It is required for all teachers to be registered with the Teachers and Schools Registration Division, Ministry of Education. Confirmation of permission to work within the Public Service (civil service) requires that teachers undergo a probationary period of one to three years, after which they are confirmed in the service as qualified teachers.

Licensure waived: Due to teacher shortages, attachment teachers, that is, teachers who have not undergone teacher training programs, are recruited.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

For primary and secondary nongraduate teacher trainees, there is an induction program that commences with practicum during the training course, as well as on-site practicums for the last semester. During the on-site practicum of one semester, teacher trainees are supported by teacher mentors at school sites and by teacher trainers, inspectorates, and other relevant agencies on a regular basis.

Professional Development Opportunities

Teachers are given incentives to participate in a multiple in-service program provided by state education departments, by teacher training colleges, and by the Professional Division of the Ministry of Education and Universities. In-service programs also provide scholarships for teachers to follow master's and Ph.D programs.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Democratization of education in Malaysia has brought about the necessity of providing enough teachers in all schools. In the short term, teacher training colleges have to stretch their resources, in terms of both manpower and financial support.

In order to fulfill the requirement for trained teachers, teacher training colleges have embarked on a double intake program, in terms of numbers taken into training, and a restructuring of the teacher training curricula.

In the next five years, it is foreseen that the teacher training colleges will be addressing issues of quantity in teacher output, while upgrading quality through innovative training programs.

10

Teacher Training and Professional Development Practices in New Zealand

Submitted by: Ministry of Education

New Zealand is a country of nearly 3 1/2 million people. It has been populated by Maori for over a thousand years and by Europeans for nearly two hundred years. Today, most New Zealanders are English-speaking Europeans. The indigenous Maori comprise the second largest group. At the last census (1991), Maori made up 14 percent of the population and numbered 155,947.

The New Zealand Maori population is considerably younger in age structure than the total population: 37.5 percent of Maori were under 15 years of age at the 1991 census, compared with 23.2 percent of the total population. This youthfulness is reflected in the percentages of Maori in primary (over 21 percent) and secondary (17 percent) schools.

The next largest group comprises peoples from the Pacific Islands. Since the 1960s, this group has experienced the fastest growth rate of all ethnic groups in New Zealand—from a population of just over 14,000 in 1960 to an estimated 150,000 today. Like the Maori, the Pacific Islands population is significantly younger in age than the total New Zealand population, with 38.7 percent of Pacific Islanders under 15 years of age at the 1991 census.

In more recent years, increasing numbers of peoples from Asian countries have come to settle in New Zealand. Table 10.1 shows the ethnic composition of the population, 1936–1991.

Education is available to all New Zealanders almost from birth to death. The Education Act of 1989 provides a state system of free, secular education for all children between the ages of 5 and 19. In addition, the government operates a *study right* scheme to enable students to continue with tertiary education.

The education system involves a comprehensive range of early childhood services; 13 years of schooling—comprising 8 years of primary schooling and 5 years of secondary schooling; the provision of post-secondary education through universities, polytechnics, colleges of education, and private training establishments; and transition education, community education, adult education, nonformal education, and distance education opportunities and provisions.

Since the late 1980s New Zealand education has been characterized by comprehensive education reforms affecting all education sectors and institutions throughout the country. There have been substantial changes to the administrative structures, together with comprehensive new national curriculum and qualifications frameworks. Successive governments initiated the reforms to achieve higher educational performance standards, increased participation rates, greater efficiencies, more decentralized decision making, and greater emphasis on meeting both the nation's economic and labor market needs and its community needs. (See Appendix 10.A, The New Structure of the New Zealand Education System.)

TABLE 10.1
Ethnic Composition of the Population—1936–1991 Censuses

Census	Tot. Pop.	Maori•	Pacific Is. Polynesian	Chinese	Indian	Fijian	Other
1936	1,573,812	82,326	988	2,943	1,200		1,486,355
1945	1,702,298	98,744	2,159	4,940	1,554		1,594,901
1951	1,939,472	115,676	3,624	5,723	2,425		1,812,024
1956	2,174,062	137,151	8,103	6,667	3,087	479	2,018,575
1961	2,414,984	167,086	14,340	8,333	4,027	746	2,220,452
1966	2,676,919	201,159	26,271	9,982	6,655	1,323	2,431,529
1971	2,862,631	227,414	40,918	12,470	7,140	1,147	2,573,542
1976	3,129,383	270,035	61,354	14,860	9,247	1,548	2,772,339
1981	3,175,737	279,252	89,697	19,248	11,580	1,908	2,774,052
1986	3,307,084	295,659	99,135	20,259	12,483	2,127	2,877,421
1986*	3,263,283	295,317	91,869**	19,566		12,126	1,875
2,842,530							
1991*	3,373,929	323,493	123,183**	37,689	26,979	2,760	2,859,825

•Those specifying themselves as half or more New Zealand Maori, plus those not specifying the degree of origin.
*Usually resident population.
**Comprises Samoans, Tongans, Cook Islanders, and Niueans.

CONTEXT

Definitions

Tables 10.2 and 10.3 provide information for definitional purposes.

Education Administration

Virtually every aspect of the administration of education in New Zealand has been reviewed in the last five years.[1] As a result of the reforms, the following education agencies have been established.

Central Agencies.

Ministry of Education: The Ministry of Education was established in 1989 as a department of state under the State Sector Act of 1988. It is responsible for providing policy advice to the government on all aspects of education, from early childhood to tertiary, for overseeing the implementation of approved policies, and for ensuring the optimum use of resources allocated to education.

Education Review Office: The Education Review Office was also established in 1989 as an independent department of state under the State Sector Act of 1988. Its responsibility is to regularly and systematically audit and review the performance of all registered schools and licensed early childhood centers against requirements set out in legislation, charters, agreements, and other policy directives.

New Zealand Qualifications Authority (NZQA): The New Zealand Qualifications Authority is a Crown entity established under the Education Amendment Act of 1990. The two central purposes of NZQA are to establish the National Qualifications Framework, built on defined standards, and to ensure the quality delivery of those standards on the basis of the Framework.[2] The NZQA also ensures that New Zealand qualifications are recognized overseas, and that overseas qualifications are recognized in New Zealand; and it administers national secondary and tertiary examinations.

Teacher Registration Board: The Teacher Registration Board is a Crown entity established under the Education Act of 1989 to maintain a register of teachers. It does this by determining the policies under which teachers will be able to be registered, approving registrations and issuing practicing certificates, deciding if a teacher's name should be removed from the register, and providing boards of trustees with the names of de-registered teachers.

Four service-providing organizations: All of the four service organizations were established as Crown

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[1] The reforms are spelt out in a series of government policy documents: *Tomorrow's Schools* (school sector),1988; *Before Five* (early childhood education), 1988; *Learning for Life One and Two* (postcompulsory education and training), 1988 and 1989.

[2] Quality is defined by the authority as "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs."

TABLE 10.2
Overview

Type of Institution	Levels	Age Range	Type/Level of Ed. Required to Teach
PREPRIMARY SCHOOLING			
Early Childhood	N/A	Before 5	A range of education and qualifications, including Diploma of Teaching (Early Childhood)[1]
PRIMARY SCHOOLING	J1-F2 (Y1-8)[2]	5 to 12	Diploma of Teaching (Primary) (there is a growing trend toward a university degree)
COMPOSITE SCHOOLING (PRIMARY AND SECONDARY)			
Area	J1-F5/7 (Y1-11/13)	5 to 16/18	
SECONDARY SCHOOLING	F3-7 (Y9–13)	13 to 16/18	University degree or diploma in subject specialty or in education, Diploma of Teaching (Secondary)
POSTSECONDARY EDUCATION AND TRAINING	(PSET)(L1-8)[3]		
University	L4/5–8	16 plus	Advanced PSET degree or diploma in area of specialty
PRESERVICE TEACHER EDUCATION			
College of Education	L2–7	16 plus	Education degree or diploma, or other university degree or diploma in area of specialty; teaching experience

[1] The Diploma of Teaching is not a required qualification; however, an increasing number of early childhood services are preferring to employ staff with a diploma.

[2] The traditional (usual) nomenclature for primary schooling is J1–3 (junior) for the first three years (J3 and S1 are interchangeable); S2–4 (standard) for the next three years; and F1&2 (form) or S5&6 for the final two years. A new nomenclature, based on years for all of schooling (Y1–13), is being considered.

[3] National Certificate levels.

entities under the Education Act of 1989, and are chartered to the Ministry of Education. They are the Early Childhood Development Unit (ECDU), which promotes the development and provision of quality, accessible, and culturally appropriate early childhood services; the Special Education Service (SES), which provides quality services to assist those learners from early childhood to tertiary who have special educational and developmental needs; the Careers Service Rapuara (CSR), which has the role of providing advice and information that helps people choose the work, education, and training that suits them; and the Education and Training Support Agency (ETSA), which develops and administers training to support individuals preparing to enter or reenter the work force, or who are participating in work-based training.

Other Administrative Bodies

Boards of Trustees: All state primary and secondary schools in New Zealand are governed by a board of trustees. Members of a board include those elected by parents of students enrolled at the school, the principal, and a staff representative. Secondary school boards may also have a student representative.

Each board of trustees has a large measure of autonomy in its control of the management of the school. It has the responsibility for payment of ancillary staff salaries and allocation of funds for the operational activities of the school. Since January 1, 1993, it also has responsibility for the payment of senior management staff salaries. The board must ensure that there is a written charter of aims, purposes, and objectives of the school approved by the Minister of Education. The school charter includes the National Education Guidelines and local goals and objectives that reflect the particular aspirations of individual schools and their communities.

Tertiary Councils: Each university, polytechnic, and college of education is controlled administratively by a council, which represents the interests of staff, students, relevant education groups, the community, and the Minister of Education.

Education Service Centers: Fourteen independent education service centers offer a range of administrative services to schools, such as school transport, payroll, and property services.

THE EDUCATION SECTORS

Along with many other countries, New Zealand has well-developed systems providing for early childhood, primary, secondary, tertiary, community, and transition

TABLE 10.3

Educational System and Student Population, 1 July 1992

Type of Institution	No. of Institutions	No. of Students	No. of Teachers	Completion Rates (%)
EARLY CHILDHOOD	3,336 centers	135,732		
Licensed Childcare Centers	852	38,734	3,739.35	
Playcenters	578	20,601	1,237.24	
Kindergarten	582	45,603	1,521.74	
Kohanga reo	719	12,617	N/A[1]	
PI Language Nest	170	3,682	N/A	
Funded playgroups	334	9647	3,054.94	
Home-based	72	3,470	88.77	
PRIMARY	2339	397,100	19,645.5[2]	100
Full primary	1152	135,916	7,040.4	
Contributing primary	954	197,175	9,486.7	
Intermediate	148	56,951	3,118	
Private	85	7,058	422.2	
COMPOSITE (PRIMARY AND SECONDARY)				
Area schools	39	9,860	692.8	
Private	30	10,852	11,501.1	
Correspondence	1	10,845	372.2	
SECONDARY	339	227,912	16,370[3]	Ist yr 98.8
State F3-7	242	194,416		2nd yr 96.9
State F1-7	57	22,785		3rd yr 88.7
State F3-7(with AT)[4]	19	10,196		4th yr 75
Private	21	6,195	463.9	5th yr 55
6th + yrs 05%				
MAORI MEDIUM SCHOOLS				
Kura Kaupapa	13	510		
Primary schools	250	13,843		
Composite schools	15	795		
Secondary schools	40	2,278		
POST-SECONDARY EDUCATION				
Universities	7	58,745 (FT)[5]	3,521 (FT)	
34,437 (PT)[6]	1,339 (PTE)			
Polytechnics	25	33,589 (FT)	3,956 (FT)	
65,057 (PT)	3,917 (PT)			
Colleges of Edn.	5	5,583 (FT)	560 (FT)	
4,732 (PT)	138 (PT)			
Private Training Est.[7]	17	913		
Special schools[8]	59	6,094	584.4	
Home schooling—primary		2,124		
Home schooling—secondary	454			
NON-FORMAL EDUCATION				
TOPs[9]	15,045			
State schools		49,782		
Universities		4,407		
Polytechnics		39,672		
TOTAL	6,160	1,114,680		

[1] Not available.

[2] State only: 16,812 regular, 1,525 reliever, 3,942 part-time.

[3] State only: 12,491 regular, 621 reliever, 3,258 part-time.

[4] With attached intermediate.

[5] Full-time.

[6] Part-time.

[7] There are currently many more establishments than these numbers.

[8] Includes hospital schools and health camps.

[9] Training Opportunities Programmes.

Note: Comment on Primary figures: Three quarters (77 percent) of primary and intermediate staff held permanent positions. Of these, 72 percent were women. Relief and part-time teachers made up 15 percent of the staff, with women accounting for 91 percent of these positions. The remaining 7 percent of primary and intermediate positions were filled by provisionally registered teachers (i.e., first- and second-year teachers) of whom 83 percent were women. Schools in main urban areas employ four times as many staff as do schools in rural areas.

In the 11 years prior to 1 March 1993, 108 state or integrated schools closed, 107 of which were primary schools. An overwhelming majority of school closures were in rural areas (97 schools), and the largest number of schools were closed in the Southland education district.

In the 11 years prior to 1 March 1993, 42 state or integrated schools opened. Almost half were *kura kaupapa* Maori schools, the majority of which have been established in the last 4 years.

TABLE 10.4

Comparison of the Number of Students in State, Private, and Correspondence Schools, 1981–1991

	1981		1991		Change
	Number	Percent	Number	Percent	1981–1991
State	648,488	90.3	678,101	95.9	30,387
Private	66,977	9.3	24,387	3.8	–42,590
Correspondence	2,342	0.3	2,285	0.4	–57

education. The Education Act of 1989 provides for free education in state primary and secondary schools and attendance is compulsory until the age of 16.[3]

On July 1, 1992, there were 664,408 students enrolled at schools in New Zealand, the first significant total increase since 1986 (672,040), and the first increase in primary school rolls since 1977. The large majority of students attend state primary and secondary schools. A small percentage enroll at private schools (see Table 10.4). Parents are also able to educate their children at home, provided that a standard of education similar to that available in state schools is maintained. Children living in very remote areas, or unable for other reasons to attend an ordinary school, may be enrolled in the Correspondence School, which is a national distance education provider. Lessons are provided in print and on tape and video modes.

Primary and secondary schools are required to be open each year for at least 396 half days and 380 half days, respectively. The school year usually starts at the beginning of February and finishes in mid-December, and is divided into three terms. The first term usually commences on the 5th Monday of the year, the second term in May on the 21st Monday, and the third term in September on the 37th Monday. The major holidays occur in May, August, and December-January, and primary schools have a one-week, mid-term break in the second term, usually during the first week of July.

Early Childhood Education

Most New Zealand children begin their formal education before primary school. Early childhood education is available to children under five years of age through a wide range of services, most of which are administered by voluntary agencies with government assistance. Services do not differentiate between core and education.

The main providers of early childhood care and education are kindergartens, playcenters, childcare centers, home-based day care schemes, Early Childhood Development Unit (ECDU) funded playgroups, Pacific Islands Language Groups, and *Te Kohanga Reo*, which are based on total immersion of children from birth to school age in Maori language, culture, and values.

Early childhood services are subsidized through sessional payments to providers, on the basis of the number of children enrolled. The increase in government funding available to early childhood education since 1988 has stimulated an increase in the number of places available. In 1988, there were 2,570 centers. In 1992, this had increased to 3,336. In 1988, the number of children enrolled was 94,677. By 1992, this had grown to 135,732. Today, 46.6 percent of all New Zealand children aged one to four years—including most three-year-olds (73.2 percent) and nearly all four-year-olds (92.7 percent)—are enrolled in some form of early childhood education.

Figure 10.1 and Table 10.5 show, respectively, the distribution of early childhood education enrollments on July 1, 1992, and the percentage of an age group enrolled at an early childhood service, 1990–1992.

Primary Education

Primary education is compulsory from six years of age, but nearly all children start formal schooling on their fifth birthday and receive eight years of education before moving to secondary school. The first three years are spent in junior classes schooling (J1–3), the next three in middle primary (S2–4), and the final two years as senior primary or intermediate (S5&6/F1&2). Class promotion is not based on academic performance. Children generally move from one standard, or form, to another with their age group, a practice generally known as social promotion.

The typical New Zealand primary school enrolls children between the ages of five and twelve *(full primary)* or between five and ten *(contributing)*. The final two years of primary schooling, forms one and two, may be taken at a full primary school (new entrants to form 2), an intermediate school (forms 1 and 2), an area

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[3] Most aspects of primary and secondary education are free, funded by the state from general taxation. Parents must meet some costs for items such as exercise books and other materials.

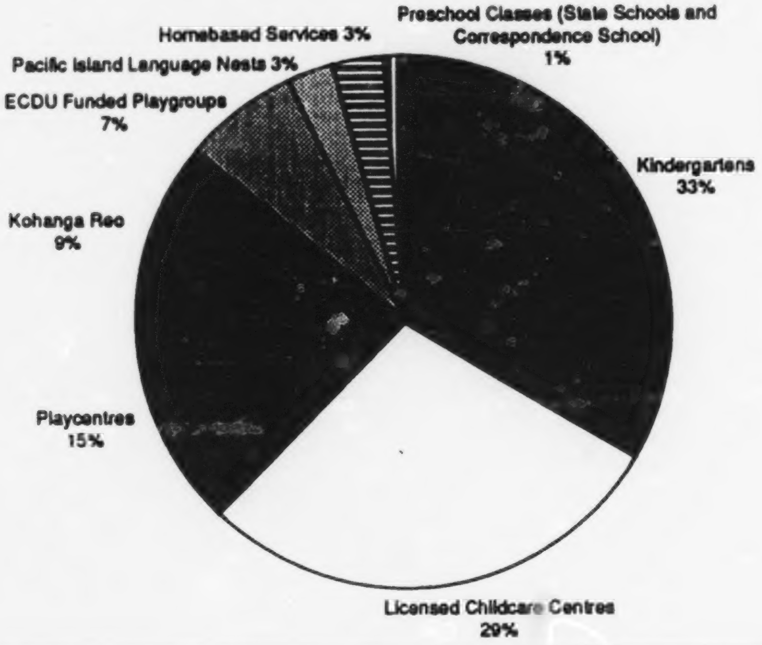

FIGURE 10.1
Distribution of early childhood education enrollments as of 1 July, 1992.

TABLE 10. 5
Percentage of an Age Group Enrolled at an Early Childhood Service

Age	1990	1991	1992
Under 1 year	9.4	8.6	10.8
1–2 years	18.1	19.1	22.7
2–3 years	34.4	34.7	37.7
3–4 years	71.5	71.4	73.2
4–5 years	95.5	92.2	92.7

school (new entrants to form 7), or a form 1–7 school, depending on where a child lives. Schools with fewer than 150 pupils make up 55 percent of the primary and intermediate schools.

The primary rolls as of July 1, 1987–1992, and the projected rolls for 1993–1997, are shown in Figure 10.2.

Secondary Education

Secondary education starts at form 3 and continues through to form 7. Nearly all secondary schools in New Zealand are part of the state system. Most are co-educational. There is a small number of single-sex schools and schools with a religious affiliation.

Students who have completed eight years of primary schooling are normally admitted to a secondary school, most often at age 13. Students are legally obliged to remain at school until their sixteenth birthday. Nearly all complete three years of secondary education. However, a substantial majority of students today remain at school beyond their sixteenth birthday. In 1993, of the cohort starting in form 3 (Y9), nearly 85 percent were still at school at the end of the fourth year (F6), and 52 percent for the following fifth year (F7)—over three times the percentage continuing to form 7 in 1983 (17 percent). It is expected that retention rates in the senior secondary school will continue to rise.

The School Curriculum

The Ministry of Education is responsible for developing and setting the national curriculum objectives for New Zealand schools. Boards of trustees, principals, and teachers in schools are required to meet and follow the objectives as part of their charter obligation. The national school curriculum has for many years included a basic core of English, mathematics, science, social studies, music, arts and craft, and health education and physical education for the years of compulsory schooling (J1-F4). At intermediate level, the curriculum also includes work-

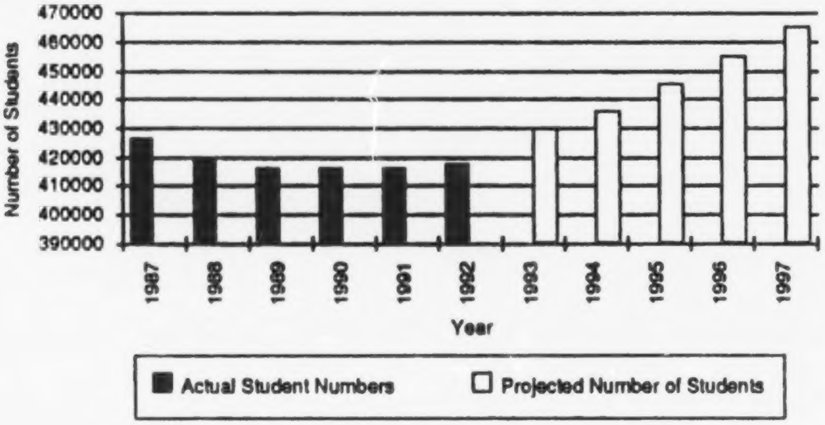

FIGURE 10.2
Primary rolls (infants to Form 2) as of 1 July, 1992—actual and projected.

shop craft and home economics. During their first two years of secondary schooling, students follow the national school curriculum (see above), and also select a number of optional subjects, which frequently include economics and second languages. For their final three years (F 5–7), students are encouraged to pursue a more specialized program of in-depth studies, choosing four to six subjects from a wide range of options, most of which contribute to national qualifications.

Maori language and culture is taught widely in schools. Recently, as a result of Maori initiatives, state-funded *kura kaupapa* Maori schools have been established to improve Maori educational achievement and promote the Maori language. Kura kaupapa Maori teach the same syllabi as other state schools, except that Maori is the principal language of interaction and instruction.

In April 1993, the government launched the New Zealand Curriculum Framework (NZCF) as the official policy for teaching, learning, and assessment in New Zealand schools. The framework describes a set of broad curriculum principles, seven essential learning areas (language and languages, mathematics, science, technology, the social sciences, the arts, and health and physical well-being); and eight groups of essential skills (communication, numeracy, information, problem-solving, social and cooperative, self-management and competitive, physical, and work and study skills).

National curriculum statements for each of the learning areas are being progressively developed to spell out in more detail the knowledge, understandings, skills, attitudes, and values that are described in the framework. The curriculum statements include achievement objectives set in eight levels to indicate student progress in learning throughout the years of schooling, where levels one and two approximate what can reasonably be expected of most students in the first four years of schooling and levels seven and eight in the final post-compulsory two years. Teachers are expected to assess and report students' progress in relation to these levels.

Secondary School Attainments

There are currently four national awards for senior secondary school students: School Certificate, Sixth Form Certificate, Higher School Certificate, and University Bursaries Entrance and Scholarship. The awards are approved by the New Zealand Qualifications Authority.

School Certificate: Subjects for School Certificate are taken by most students in their third year of secondary education, most often at the age of 15. School Certificate is awarded in single subjects. A student may take any number of subjects, with English a requirement for all full-time students. Student achievement is credited with a grade from A–E for each subject, where A is highest and E lowest. Assessment of subject performance is by external examination, by internal school assessment, or a combination of both.

School Certificate is broadly equivalent to the British General Certificate of Secondary Education (GCSE) at grades A–E; the British General Certificate in Education (GCE) at 0 level; the British Certificate of Secondary Education (CSE) at grades 1–3; the Canadian or United States Grade 10; and the Australian states year 10 awards, School Certificate, Junior Certificate, or Achievement Certificate.

Sixth Form Certificate: The Sixth Form Certificate is awarded on a single-subject basis to students who have satisfactorily completed a course of one year beyond School Certificate level. It is a nationally moderated, internally assessed qualification, with no public examination. A candidate may enter a maximum of six subjects, one of which must be English. Grades are awarded by schools on the basis of student achievement in each subject taken, on a scale from 1 (highest) to 9 (lowest).

Sixth Form Certificate grades are recognized for entry to courses offered by polytechnics and colleges of education and, to a lesser extent, by universities.

It is broadly equivalent to a Canadian or United States Grade 11.

Higher School Certificate: The Higher School Certificate is awarded to students who have satisfactorily completed five years of study at a secondary school level, which includes an advanced course of one year beyond Sixth Form Certificate in at least three subjects. It is also awarded to students who have obtained an A or B Bursary qualification from the University Bursaries Examination (see below). The award is decided by schools on the basis of certain national guidelines.

University Entrance, Bursaries, and Scholarships: This national qualification has been the recognized method of entry for study at a New Zealand university since 1986. The national examination for these awards is most often taken by secondary students at the end of their form 7 year (though an increasing number of schools allow more able students to sit in form 6). It is a competitive examination for supplementary awards for study at a university. Outstanding achievement in individual subjects is recognized by the award of subject scholarships, and may allow successful students to study at a more advanced level at university.

University Bursaries Entrance and Scholarship are broadly equivalent to British GCE A levels; Canadian or United States Grade 12; and in different Australian states—year 12 awards, Higher School Certificate, Senior Certificate, Matriculation, or Secondary School Certificate.

National Certificate: The New Zealand Government has recently decided that it will reform senior secondary qualifications through the introduction of a comprehensive National Certificate within the National Qualifications Framework. The new qualification will be available at secondary and tertiary levels. In 1997, it is planned that the National Certificate will be the sole nationally approved qualification for senior secondary school students, and that the Sixth Form Certificate and Higher School Certificate will be phased out. School Certificate and University Entrance, Bursaries and Scholarships will remain, if in modified form, as options outside the National Qualifications Framework.

Composite Schools

Composite schools, most often comprising the consolidation of smaller rural schools, have been established in the last 30 years in order to provide children in smaller centers with an improved opportunity for secondary education, enjoying the special facilities and more specialized teaching of larger schools. These rural schools provide education at both primary and secondary levels, either in the form of area schools (from junior to form 7), or form 1 to 7 schools.

Private Schools

In addition to state schools, there are a number of registered private primary and secondary schools run by religious or philosophical organizations, or by private individuals. To be registered, a private school must comply with national standards of accommodation, staffing, equipment, and curriculum set down in the Education Acts of 1964 and 1989. Some financial assistance is provided by the state toward running costs and teachers salaries. The Private Schools Conditional Integration Act of 1975 has allowed for the voluntary integration of private schools into the state system, without their surrendering their special religious or philosophical character. A large number of private schools (predominantly Catholic schools) have taken advantage of these provisions to become *integrated* schools. *Independent* (non-integrated) schools are largely schools run by non-Catholic religious organizations.

Resources for Teaching

Learning Media Limited is frequently contracted to undertake development, production, dissemination, and promotion of resources for learning—especially of materials that document and support the national curriculum for schools. Learning Media Limited is a commercial publishing company owned by the Crown. Its principal activity is the development, production, and distribution of materials for students and teachers in New Zealand schools. It also publishes policy documents for the Ministry of Education, the *New Zealand Education Gazette,* the video magazine *Education Update,* and the *School Journal.*

The Rural Education Activities Programme, established in 1979, has the role of providing extra resources to isolated and sparsely populated rural areas.

The Reading Recovery Programme is an early intervention program that provides intensive individual help to any child who is falling behind in reading and writing after one year at school. There are also specialist teachers attached to schools throughout New Zealand, providing long-term assistance for children with serious reading difficulties. Over 200 primary and secondary advisers are employed by colleges of education to provide advice and guidance to schools, and to run in-service courses for teachers throughout the country.

Special Education

Whenever possible, children with physical or other disabilities are enrolled with other children at regular early childhood centers or in regular classes at their local primary or secondary schools. When necessary, buildings are modified, special equipment is provided, and ancillary staff are appointed to assist teachers. Specialist assistance in helping children with special needs is provided mainly by the Special Education Service.

There are residential schools that meet the needs of a small number of children with disabilities for periods of time ranging from one term to several years. In addition, there is a small number of state day schools for students with intellectual and physical disabilities. There are also hospital classes that meet the needs of children who are long-term patients.

Postsecondary Education and Training

Formal tertiary education in New Zealand is provided by universities, polytechnics, *wanaga,* colleges of education, and private training establishments.

Until the mid-1980s, New Zealand had comparatively low levels of participation in tertiary education. Since 1988, successive New Zealand governments have initiated far-reaching reforms of the tertiary sector to improve access to higher education. The Equivalent Full Time Student (EFTS) funding system was introduced in 1990, under which tertiary institutions are funded according to the number of students they attract, though the overall budget is capped. Within course and cost categories, institutions were given discretion to mount a range of courses of their choice, up to degree qualification. In 1992, the Study Right policy was introduced, providing a range of allowances for tertiary students 16 years and over, and for secondary students 18 years and over. At the same time, the Students Loans Scheme was established, under which eligible students can receive a loan from the government to cover fees and course-related costs, and for living allowances while studying. Tertiary institutions are able to set tuition fees to meet the balance of their costs.

The success of these policies is reflected in the improved proportion of 18-year-olds advancing into tertiary education—an increase from 26 percent in 1985 to above 45 percent in 1992 (see Table 10.6 for distribution of tertiary students by sector and ethnic identification, 1992). Between 1987 and 1992, the number of equivalent fulltime students (EFTS) increased from 84,364 to 126,155—an increase over four years of 49.5 percent (see Table 10.7 for participation rates by age and gender, 1981–1991). This improvement is expected to continue, reflecting higher retention rates in the senior secondary school, increased recognition by young people of the link between tertiary education and employment prospects, and the government's commitment to increasing the number of funded places in tertiary institutions.

Universities

There are seven universities in New Zealand, located in or near the major cities of Auckland, Hamilton, Palmerston North, Wellington, Christchurch, and Dunedin. The universities are predominantly government-funded institutions and each offers undergraduate and postgraduate degree programs. They award bachelor's, master's, and doctoral degrees, and postgraduate diplomas. Some offer undergraduate certificates and diplomas.

Entry to academic and professional programs offered by New Zealand universities is open to all school leavers who meet prescribed minimum standards of academic achievement in the senior school (forms 6 and 7), and to all adults (over 20 years). University Councils have the power to limit entry to specific courses.

Each university sets its own program, and each university council sets the dates for terms or semesters. Typically, the academic year runs from late February to early November.

Polytechnics

There are 25 institutions in New Zealand that are part of the Polytechnic System, 18 in the North Island and 7 in the South Island. They vary greatly in size, from the smaller institutions in regional centers to large metropolitan organizations. The Open Polytechnic, situated in Lower Hutt, Wellington, provides distance education for 25,000 students who cannot attend a polytechnic as full-time students, offering over 800 courses spanning from certificate to degree level.

Polytechnics provide a wide range of vocational, professional, and community education at various levels of specialization to over 100,000 full-time and part-time students. Courses range from short courses teaching a specific skill or subject to three-year professional diploma and certificate courses. As a result of the recent education reforms, New Zealand polytechnics are now able to offer undergraduate degree programs. It is also possible for polytechnic graduates to transfer credit to some university degrees, such as Commerce.

Typically, the polytechnic academic year runs from late February to mid-December.

TABLE 10.6

Number of Tertiary Students by Sector and Ethnic Identification as of 31 July, 1992

	Ethnic Groups																
	European/ Pakeha		Maori		Pacific Islands		Asian		Other Ethnic Groups		Overseas Students		Ethnicity Not Specified		Total		
Sector	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Universities	34,788	36,627	2,852	3,714	903	951	1,950	1,956	1,320	1,202	1,698	1,264	994	973	44,495	48,687	93,182
Polytechnics	40,600	36,383	5,059	5,532	1,410	1,262	1,542	1,253	990	920	906	556	1,132	1,101	51,639	47,007	98,646
Colleges of Education	1,572	7,002	265	778	84	280	10	53	24	122	7	21	20	77	1,982	8,333	10,315
TOTAL	76,960	82,012	8,176	10,024	2,397	2,493	3,502	3,262	2,334	2,244	2,146	2,151	2,501	1,841	98,116	104,027	202,143

TABLE 10.7

Participation Rates in Formal Education and Training Courses by Age and Gender, 1981–1991

	1981			1991		
Age	Male (%)	Female (%)	Total (%)	Male (%)	Female (%)	Total (%)
15–19	49.1	50.1	49.6	64.9	65.8	65.3
20–24	145.8	9.7	12.3	21.5	18.8	20.2

Colleges of Education

The training of teachers is carried out in seven institutions spread throughout New Zealand. The main providers are five independent colleges of education (situated in Auckland, Palmerston North, Wellington, Christchurch, and Dunedin) and the School of Education at the University of Waikato. The seventh institution is a regional polytechnic offering a single program for primary teacher trainees.

All colleges provide programs that lead to a Diploma of Teaching in early childhood, primary, or secondary education. Other details about course programs, entrance requirements, and characteristics are provided in the following sections.

Private Training Establishments (PTEs)

A number of private training establishments are registered with the New Zealand Qualifications Authority. In 1992, for the first time, a small number of these received funding from the Ministry of Education. The PTEs offer certificate and diploma courses and may, as a result of recent reforms, offer degrees. There is a wide variety of PTEs offering English-language study, largely to overseas students. A small number of establishments receive funding to assist Maori teacher education.

Community Education

Community education is provided through a variety of educational institutions and other groups. Secondary schools provide both day and evening classes for adult, community, and nonformal education. Polytechnics also provide a wide range of community education courses and programs. All universities have continuing education departments that provide seminars and short- and medium-term courses. A number of other organizations are also involved, for example, Workers' Educational Association, Adult Reading and Literacy Assistance, Parents Centre Federation, and Country Women's Co-ordinating Committee.

Transition Education

Secondary schools, polytechnics, and community providers play important roles in providing transition education and training. Schools encourage the integration of transition skills development across the curriculum. Polytechnics provide substantial and numerous transition programs. Many programs are offered on contract to the Education and Training Support Agency. Numbers of community and private providers were involved in the provision of ACCESS courses, and now provide courses under the Training Opportunities Programme (TOP).

All groups are represented in the Link program, which allows secondary students, while still at school, to undergo specialized vocational education and training, or to experience the tertiary education sector. The Careers Service Rapuara has responsibility for the coordination and administration of Link.

National Qualifications Framework

By 1997, it is envisaged that all nationally approved qualifications in New Zealand for both schooling and postschooling, including degrees and advanced degrees, will come under the umbrella of the new National Qualifications Framework.[4] The New Zealand Qualifications Authority has responsibility for developing the framework, which will regulate transactions between qualifications through a mechanism of eight levels, where level 1 is broadly equivalent to form 5 studies and level 8 is the standard of an advanced graduate and diploma qualification. The framework will allow students to take courses at different institutions, and with private providers.

The components of qualifications are units of learning based on clearly defined learning outcomes (unit standards). All learning seeking national qualification will be translated into unit standards, and assigned to a level between 1 and 8. The unit standards will contribute to one of three new nationally recognized qualifications: a National Certificate for levels 1 to 4; a National Diploma for levels 5 to 7, including a first degree at university; and higher degrees/diplomas for level 8.

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[4] For the moment, the university sector has decided that its qualifications will remain outside the framework.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

Teachers comprise one of the largest groups in the service industries in New Zealand. In 1992, there were over 10,000 early childhood teachers, nearly 20,000 primary teachers, nearly 17,000 secondary teachers, 13,500 tertiary teachers, and a large number of paid and voluntary teachers in other education services.

The following analysis of the teaching profession is based largely on the characteristics of teachers in the school sector.

Different Categories of Teachers

In the early childhood sector, there is a variety of workers, both paid and voluntary. They cover a range of education and qualifications, from those who have trained and gained a diploma in teaching at colleges of education—as well as a university degree—to those who are untrained. Primary and intermediate teachers are trained as generalist teachers able to teach a range of classes of students, from junior primary to senior primary, in most if not all areas of the curriculum. There are some specialist teachers in intermediate schools. Secondary teachers are trained and employed largely as subject specialists.

Teachers in all sectors are also categorized according to their level of responsibility. The range of levels is generally in proportion to the size of the institution. Secondary schools, for example, usually offer a greater range of positions than do primary schools, with three/four graded positions of responsibility allocated on the extent of responsibility (usually heads of department of the core, or common learning areas are allocated higher positions than are those of electives) and advancing to anywhere from two to several senior management positions.

Average Age

In both primary and secondary sectors, the average age of teachers is rising. As of March 1, 1987, the largest numbers of both genders in the primary service were in the 35–39 age group. As of March 1, 1992, the largest numbers were in the 40–44 age group. Only 17 percent of permanent teachers at state primary and intermediate schools were under 30 years of age, and 24 percent were over 50 years.

Male teachers continue to be slightly older, on average, than female teachers. The average age for male teachers in the primary sector was 42.9, compared with 40.7 for women; and 42.1 and 41.5, respectively, in the secondary branch. (See Table 10.8.)

Length of Service

Like other government employees, schoolteachers and college and polytechnic lecturers are available to work to the official retirement age of 60 years. Male teachers, in general, work for this length of time. The length of service for women teachers varies considerably. For many, their service is interrupted by parental leave. As with other occupations, an increasing number of women are returning to the work force, either as full-time or part-time teachers. University lecturers have tended to have more flexibility to retire earlier or later than 60, according to health or to other factors. However, recent changes in the superannuation conditions will mean that an increasing number of teachers in all educational institutions are likely to continue teaching until 65.

Gender

The proportion of teaching staff who are women has continued to increase in all sectors except secondary, where it has remained the same. The largest increase has been in colleges of education, where women in 1992

TABLE 10.8
Ages of Permanent Full-time Teachers in Each Branch, 1 March 1992

	Primary		Area		Secondary	
	Women (%)	Men (%)	Women (%)	Men (%)	Women (%)	Men (%)
29 years and under	19	9	7	3	14	7
30–39 years	22	26	22	30	27	31
40–49 years	36	38	45	47	38	41
50 plus years	22	26	26	20	21	20
Mean Age	40.7	42.9	43.3	42.8	41.5	42.1

TABLE 10.9
Percentage of Women Teachers in the Education Sectors, 1992

	ECE (%)	Pri (%)	Sec (%)	Uni (%)	Poly (%)	CoE (%)
Total staff	98.2	76	51	26	48	60
Senior positions	95	52	39	13	36	47

were 60 percent of the staff, compared with 38 percent in 1987. In schools, women tend to hold a much higher proportion of part-time positions (96 percent primary, 72 percent secondary) and relieving (or substitute) positions (86 percent primary, 66 percent secondary), but not in universities (31 percent part-time).

Women are less likely to hold senior positions than would be expected on the basis of their proportions in each of the sectors; for example, women were 51 percent of secondary teachers but only 19 percent of secondary principals (see Table 10.9)[5]. The general pattern is for the proportion of women to decrease as the level of the position increases. Consequently, the salary levels for women are on average below those of men (see section "Characteristics of Teaching Employment," below).

Though the percentage of women holding principal's positions in schools is rising steadily (27 percent in 1992, up from 18 percent in 1987), the proportion of each gender who hold principal positions has not changed in the past five years (constant 3 percent for women, 31–32 percent for men). Furthermore, the proportion of applications from women for senior positions (at all age levels) is lower than would be expected on the basis of their proportion in each branch. The proportion tends to decrease as the level of position increases, with women more likely to apply for lower positions.

The proportion of applications from women is much higher for positions at girls' schools than for those at co-educational schools (70 percent vs. 40 percent). In terms of location, schools in the main urban areas had the highest proportion of applications from women. In terms of subjects, women formed a higher proportion of applications for positions teaching English (61 percent), dean (55 percent), and guidance (55 percent).

Women continue to have a higher success rate than men for positions at all levels of schooling; for example, women made 43 percent of the applications for senior secondary positions and comprised 56 percent of the appointees. Women are more likely to be successful when applying for positions in their current schools, and have higher success rates than do men in most subjects—for example, English (76 percent), physical education (57 percent), and art (55 percent)—but less success in science (41 percent), mathematics (43 percent), and social sciences (44 percent) (see Tables 10.10 and 10.11).

Recruitment and Employment of Teachers

As a result of the reforms that occurred in the school sector at the end of 1989[6] and in the tertiary sector in 1990,[7] decisions relating to the training, recruitment, and appointment of teachers were decentralized. In addition, responsibility for determining the numbers of preservice teacher trainees and for the recruitment of trainee teachers was transferred to individual teacher training providers.

Individual boards of trustees have been given the roles of recruitment, appointment, and performance appraisal of school teachers. On approval from the Ministry of Education, they were also provided with the opportunity to employ additional teachers over and above their ascribed staffing entitlement, using locally raised funds and/or their operations funding.

As for most other positions, teachers are employed following written application and interviews.

Characteristics of Teaching Employment

Average Salary Levels

Table 10.12 shows a sample of mean salaries for 1992.

In comparison, the average (ordinary time) annual wage for the New Zealand work force in 1992 was approximately NZ$28,000. With overtime included, it was approximately NZ$30,150 per annum.

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[5] Women were principals of only 15 out of 220 state and integrated coeducational secondary schools (7 percent) and at none of the 44 boys' schools. Men, on the other hand, held six of the 49 principals' positions at girls' schools (12 percent).

[6] *Tomorrow's Schools, the Reform of Educational Administration in New Zealand,* Government Printer 1988; *Administering for Excellence: Effective Administration in Education.,* Government Printer, 1988.

[7] *Learning for Life: Education and Training Beyond the Age of Fifteen,* Government Printer, 1989 and *Learning for Life Two, Education and Training Beyond the Age of Fifteen,* Government Printer, 1989.

TABLE 10.10
Tenure of School Teachers, 1 March 1992—Percentage of Each Position Held by Women

	Permanent and Provisional (%)	Part-time (%)	Relieving (%)	Total (%)
Primary Schools	73	96	86	78
Area Schools	52	76	78	60
Secondary Schools	45	72	66	51

TABLE 10.11
Tenure of Tertiary Teaching Staff 1 July, 1992—Percentage of Each Position Held by Women

	Full-time (%)	Part-time (%)	Total (%)
Colleges of Education	58	71	60
Polytechnics	40	57	48
Universities	24	31	26

TABLE 10.12
Mean Salary of Permanent Full-time Teachers in Each Branch, 1 March 1992

	Women	Men	All	Difference
Primary Schools	NZ$32,828	NZ$39,008	NZ$34,495	NZ$6,180
Area Schools	37,411	42,186	39,727	4,775
Secondary Schools	41,025	43,640	42,474	2,615

In New Zealand, teachers are generally seen by the community as a professional class, although not as highly regarded as doctors, lawyers, and accountants. As for other professional groups, there is now a national register of teachers who have fulfilled certain professional requirements, such as training accreditation and qualifications (see section on "Licensing Requirements," below).

Education is a service of the state, which provides nearly all the funding from general taxation, including teachers' salaries. While teachers are not civil servants, they are considered government employees. From the informal data available, it would appear that teachers' salaries, in relation to those of other government employees, have improved in the past decade but still lie below the mean.

In 1992, the average teaching salary for men was higher than that for women in all sectors. Gender salary differences tend to widen as the seniority of the position increases, probably the result of underrepresentation of women in the more highly paid, senior positions.

Variation in salaries was also the result of differences in credentials/qualifications, teacher experience, levels of responsibility, and sector. There is a clear salary hierarchical differential between the various education sectors, in which teachers in the early childhood centers receive the least, and those in university positions the most. New Zealand primary and secondary teachers are not paid on a common salary scale. On average, a primary teacher with the same qualifications and teaching experience, and doing similar tasks, receives about 10 percent less than her secondary teacher colleague.

Regional and local salary incentives are occasionally offered by boards of trustees to attract school teachers to isolated areas. Special offers of attractive conditions—such as low-rent housing—have been used to encourage teachers to take up positions in remote areas, or where there is an acute staffing shortage. Secondary school boards occasionally offer incentives in the form of higher positions of responsibility to attract staff in areas of subject shortage.

Employment Conditions and Salaries

Since the beginning of 1990, there have been substantial changes in the legislation surrounding the determination of teachers' salaries and conditions of employment.

The main changes have been the introduction of individual contracts for secondary school principals, the passing of the Employment Contracts Act (1991), and the removal of senior management staff from the basic scale rate.

As part of the State Sector Act of 1988, the States Services Commission[8] has been given the responsibility to negotiate with teacher unions the pay and conditions of all education services employees (other than principals), in consultation with the representatives of the employing party—the Schools Trustees Association. In 1992, such negotiations were conducted for the first time under the terms of the Employment Contracts Act. The agreed conditions are set out in employment contracts negotiated under the system established by the Employment Contracts Act.

As the legal employer of teaching and support staff of education institutions, local boards of trustees must comply with the terms and conditions of all teaching and nonteaching collective and individual contracts and salary scales, and must also observe the principles of the State Sector Act.

Section 79 of the act sets out the general principles for a good employer. These are the same as for other state sector workers, and include good and safe working conditions (including a clause on sexual harassment); an equal employment opportunities program; impartial selection of suitably qualified staff for appointment; recognition of the aims, aspirations, and employment requirements of the Maori people; and opportunities for the enhancement of the abilities of individual employees (professional development—see below). The Education Review Office has the function of regularly monitoring boards' performance in these areas.

As noted above, teacher unions act as the agent for teachers on the basic scale in the annual national collective negotiations as regards salaries and conditions of employment. Teacher unions can take compliance orders against boards of trustees who fail to meet the "good employer" provisions of the act. Like workers in other areas, teachers also have the alternative option of pursuing a personal grievance under the Human Rights Commission Act of 1977, the Race Relations Act, or the Employment Contract Act of 1992, where the circumstances make this appropriate.

Other Conditions

In 1979, the government introduced a class-size schedule of one teacher to 25 pupils in primary schools with rolls of below 151. Between 1982 and 1988, teacher/pupil ratios in primary schools improved overall from 1:21.2 to 1:18.9. In secondary schools, the ratio improved over the same period from 1:17.3 to 1:15.7.

Since 1984 the government has employed an additional 1,456 teachers to improve the educational opportunities of children in their early years of schooling.

In order to assist the process of mainstreaming children with disabilities into ordinary schools, the government, in June 1990, announced extra funding to provide additional hours of teacher-aide employment.

Patterns of Supply and Demand for Teaching Positions

The size of the teaching service is directly linked to demographic factors, primarily to changes in the size of the student population. As well as demographic factors, the retention of the existing teaching force is influenced by political and economic change. Changes in the industrial relations environment have removed the ability of any central agency, such as the Ministry of Education, to take a direct role in planning and managing teacher supply. Changes in retirement provisions are also likely to have an influence on supply and demand in the teaching services. An extension of the age of retirement resulting from changes in the eligibility age for superannuation will probably cause an increase in the number of older teachers working in schools and, during a transition period, a reduction in the level of loss from the teaching service through retirement. As with other occupational groups, the implications of such changes have not yet been worked through.

Loss Rates

Economic instability and relatively high unemployment in New Zealand society have contributed to the trend of the last two decades for teachers to remain in a school or institution for longer periods. The 1992 loss rates for schooling were the lowest recorded for several years: eleven years for primary service, six years for area schools, and seven years for the secondary sector. The loss rates were higher for basic scales positions than for senior positions, and the highest for teachers under 34 years and over 55 years. Women and men had similar loss rates. The loss rates for 1992 were as follows:

- Primary: 10.3 percent
- Area: 12.4 percent
- Secondary: 8.7 percent

The rates varied according to type and location of school. The main reasons for resignation were personal, retirement, to take up another occupation, and overseas travel.

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[8] A department of state that has responsibility for industrial relations in government agencies.

Turnover Rates

For the past decade, there has also been a reduced turnover of staff in all schools, in response to falling rolls and socioeconomic uncertainty. More teachers than previously are staying put. Mobility within services for 1992 was as follows:

- Primary: 10 percent
- Area: 6 percent
- Secondary: 9 percent

In 1992, of those primary teachers who had changed position, 30 percent had moved to another appointment within the same school, and over half to another school in the same education district. In secondary schools, half had moved to another position within the same school, and 28 percent within the same district. Women were more likely than men to have moved to another position within the same school. As the seniority of the position increased, so did the proportion of moves to another district. The greatest mobility rates occurred for primary and secondary teachers aged 25–44. Primary teachers under 25 were the most likely to move to a school in a different education district. Secondary teachers under 29 were the most likely to have moved to a different school within the same district.

Recruitment of College Trainee Graduates

Until the early 1980s, both the primary and secondary school sectors relied heavily on the entry of newly trained young graduates from teacher education programs of the colleges of education. Today, the large majority of recruits are either teachers who are transferring or those who have returned from retirement or overseas. Percentages in 1992 of new recruits to school institutions were as follows:

- Colleges of Ed/Universities—Primary: 22 percent
- Colleges of Ed/Universities—Secondary: 30 percent
- Other sources—Primary: 78 percent
- Other sources—Secondary: 70 percent

Policies and Programs Instituted to Address Issues of Supply or Demand

Current market trends tend to determine policy action. Funding and staffing in colleges of education were reduced in 1993, partly in response to market forces. Increased numbers of new entrants to schooling in the next several years, predicted by demographic forecasts, may encourage the government to consider new policies and programs.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

Preservice education for teachers is provided in seven institutions spread throughout New Zealand. The main providers are five independent colleges of education (situated in Auckland, Palmerston North, Wellington, Christchurch, and Dunedin) and the School of Education at the University of Waikato, all of which offer preservice training programs for early childhood, primary, and secondary teacher trainees. Furthermore, the five colleges of education all offer conjoint degree/diploma in teaching courses with neighboring universities. The seventh institution is a regional polytechnic offering a single program for primary teacher trainees. Enrollments at colleges of education, by institution, are given in Table 10.13.

Governance

Each college of education is an autonomous body, administratively and financially accountable to the Crown (government) through its Council. The chief executive officer (principal) is responsible to the Council for the running of the day-to-day activities of the college and for the quality of its education program.

TABLE 10.13

Preservice Education Enrollments at Colleges of Education, 30 April 1993

Institution	Early Childhood	Primary	Secondary	Total
Auckland	281	153	329	763
University of Waikato	174	709	112	995
Palmerston North	146	2187	52	2385
Wellington	255	810	33	1098
Christchurch	146	590	299	1035
Dunedin	154	693	41	888

Diversification of College Activities/Structures

Colleges of education are experiencing a period of rapid change as they explore ways of producing better teachers and as they adapt to revised government requirements for the management of tertiary institutions and the delivery of tertiary education. Among the important changes are:

- Increased responsibility to manage their own affairs
- Bulk funding and financial accountability
- The movement of teacher support services to the colleges
- Closer affiliation with universities
- Revisions and changes in the content of training programs
- Opportunities to diversify their operations

As a result, while primary teacher education is still the main function of colleges of education, they have diversified and taken on many other responsibilities and functions as well. These developments have tended to increase the individual differences between the colleges in what they offer and in how they operate, differences influenced by size, geographic locality, and proximity to other education institutions (particularly to universities and polytechnics). Some of these activities are outlined in the following paragraphs.

Professional Development Courses: The addition of a teacher support service role has encouraged colleges to offer a wide range of approved, after-hours, advanced-study courses for teachers seeking to upgrade their professional skills and qualifications. On successful completion of courses, teachers may gain credit toward the Higher, or Advanced Diploma of Teaching, or toward a service increment. The Advanced Studies for Teachers Unit at Palmerston North College of Education caters to the continuing education of teachers, and of other adult learners, through distance education.

Teachers participate in these courses on their own time outside classroom hours. A limited number of study awards are available for teachers seeking advanced qualifications in special education.

Off-Campus Programs: Colleges of Education have established a number of off-campus programs to increase access to teacher training education for communities and groups that previously have tended to be excluded from formal training, and to fulfill the colleges' charter objective of providing more equitable access for Maori people to teachers' training. The most established of these programs is the Southland campus of the Dunedin College of Education, located in Invercargill.

The main gain from off-campus programs accrues to the community in which the program is established.

Links with Universities: There is a move nationally toward a much closer relationship between universities and colleges of education, with a complete integration in the case of Waikato University and the Hamilton Teachers College.[9] Conjoint degree/diploma programs with neighboring universities are run at all college campuses. All colleges are committed to degree programs for primary teacher trainees.

Of particular importance is the degree of consultation between colleges and universities in the teaching and administration of courses. In Auckland, for example, the program for the B.Ed. degree is jointly planned, written, and taught by university and college staff, with equal time given to university and college papers.

Ministry of Education Contracts: Colleges are well suited to tender for Ministry of Education contracts related to the school curriculum and to teacher professional development because of their expertise, regional location, national coverage, infrastructure, and the network of schools associated with them. Contracts won by colleges are essentially of four kinds:

- For the development of a particular curriculum, for example, in science
- For assisting teachers in becoming familiar with the new national curriculum statements
- For the development of resources in association with the new curricula
- For other forms of teacher development, for example, school management, or mainstreaming special education students.

The most important gains for the colleges are that staff have been put at the center of national curriculum development, gaining a much closer liaison with both teachers in schools and the Ministry of Education. Teachers are now looking more to colleges as a professional resource base.

Equal Education Opportunities: Fundamental to the health of New Zealand society is increased access for Maori students to education. Included in the range of activities colleges of education provide to achieve greater access are intensive Maori language courses, upgrading basic skills, ***kura kaupapa*** Maori courses, bilingual and immersion programs, and off-campus programs. As part of their equity policies, colleges have a range of student support systems for Maori students.

The growing number of Pacific Islanders in New

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[9] Since June 1991, all teacher education at Hamilton is now done in the School of Education of Waikato University.

Zealand society, and especially in the school system, has encouraged some of the colleges, particularly Auckland, to develop programs appropriate to the learning needs and cultural styles of Pacific Islands communities.

All colleges now have a staff member responsible for equal educational opportunities.

Teacher Support Services: The former Advisory Service of the Department of Education (pre-1989) is now located in the colleges to operate as teacher support services. Over 200 primary and secondary advisers are curriculum specialists who have been appointed to assist teachers and schools with the implementation of the national curriculum. Colleges have subsequently become more involved in local and regional curriculum and teacher development.

Entrepreneurial Activities with Overseas Clients: Several of the colleges have entered into a number of ventures involving overseas students (most of them from Japan) and teachers (largely from the United States).

Relationship Between College Courses and School Learning and Teaching Experience

College staff regularly evaluate their courses to ensure that they are relevant to national curriculum needs and classroom practice. Recent research generally supports their view that college courses satisfactorily prepare New Zealand trainees for a career in teaching (see also section "Nature and Content of Teacher Preparation," below).

Financing of Teacher Education Programs

As noted in the first section above, the state is the substantial funder of tertiary education in New Zealand. Tertiary institutions are able to set tuition fees to meet the balance of their costs. For 1994, colleges will be subsidized per EFTS to the sum of NZ$9,671, the equivalent of approximately 5 percent of the total government funding for tertiary education. This amount constitutes a 25 percent reduction in the 1993 secondary trainee EFTS grant, and a 4 percent decrease to the 1993 primary trainee grant. Typically, student fees for 1993 were approximately NZ$1,700.

Policy Guidance

Policies Guiding Preservice Teacher Education

Each college of education has the autonomy to develop its own policies within administrative and qualification guidelines, and within the government funding policies. As Crown entities, colleges of education are bound by the Public Finance Act of 1989 to follow certain financial reporting requirements.[10] These requirements have the potential to make colleges accountable for the quality of their teacher education "outputs," although the full extent of such accountability is still being worked through. College policies are set out in charter mission statements and in goals and annual financial statements (see section "Goals of the Teacher Preparation System," below).

Policies Guiding In-service Teacher Education

For many years in New Zealand, continuing education for teachers has been regarded as a professional responsibility. It is expected of all teachers—both permanent and part-time—that they be engaged in the continual improvement of their practice.

The structures underpinning teacher development were significantly changed on October 1, 1989. Changes in school funding implemented as part of the school administration reforms of 1989 have meant that 70 percent of the funds previously allocated for a centralized system of professional teacher development provision is now distributed to schools as part of their bulk operating grants. As a consequence, each school determines how much money to spend on teacher development and how the money will be spent. This has increased the scope for schools to undertake new and innovative teacher development initiatives and to tailor teacher development programs to their particular needs. The remaining 30 percent has been retained at the center and is now disbursed through contracts let by the Curriculum Functions and Contracts Management Division of the Ministry of Education.[11]

The Education Review Office has a mandate, as part of its assurance audit and effectiveness review of schools, to report triennially to the Minister of Education on each board's performance in this area.[12]

The introduction of new curricula by the government is an important factor in setting priorities for professional development activities undertaken by schools.

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[10] "The annual financial statements shall be prepared in accordance with generally accepted accounting practice and shall include … (d) a statement specifying the financial performance to be achieved by the Crown entity during the financial year; (e) … a statement of objectives specifying the classes of outputs produced … as established at the beginning of the financial year …; (f) a statement of service performance reporting the classes of output produced."

[11] Funds in addition to this sum are currently provided by the government to support the implementation of the New Zealand Curriculum.

[12] Written policies on teacher development are held by 62 percent of schools. The common format across all sectors includes a statement of rationale, purpose/goals, detailed guidelines, and conclusion.

Teacher Professional Development Issues

Contextual issues affecting teacher development include the changing ethnic, cultural, and socioeconomic profile of the student population; changes in curriculum, assessment, and qualifications; changes in public expectations of teachers—accountability, increased standards; and changes in the school/community context—management systems, parental choice, vocational pressures.

The aging of the teaching force creates challenges for teacher education. It is appreciated that the aging teacher work force needs to be carefully targeted for teacher development if the new curriculum is to be effectively implemented.

Another issue concerns the appropriate time when teacher development courses should be held—during or after school hours, or at vacation time. In New Zealand, teacher development programs mostly take place during the school year. Exceptions are courses run by the Teachers Refresher Course Committee and by tertiary institutions for teachers during May, August, and the summer vacations. There is no contractual mandate or incentive to persuade teachers to attend such vacation courses.

Agencies That Develop, Issue, Enforce, and Implement Policies of Teacher Education

The Ministry of Education is responsible for providing policy advice to the government on all aspects of education, including teacher development, and for overseeing the implementation of approved policies. The government has recognized the strategic importance of teacher development for the effective implementation of the new curriculum. It has made available NZ$5 million per annum over the ensuing years for teacher development to assist the implementation of the new curriculum statements; it also currently funds various forms of teacher development, for example, NZ$7 million bulk operation grant to schools (a component of which is expected to be used, but not tagged, for staff development); over NZ$4 million per annum for curriculum and teacher development contracts; NZ$16.66 million annual grant to colleges of education to support the cost of advisory services; NZ$340,000 to the Teachers Refresher Course Committee for funding of teachers attending vacation courses.

The Ministry of Education budgets annually to fund a range of teacher professional development programs to support the national curriculum priorities. It provides both curriculum and teacher development of about NZ$11 million annually. The central funds for teacher and school development are targeted at quality projects, with a view to their becoming models for schools to emulate or develop programs from.

The New Zealand Qualifications Authority oversees the setting of standards as they relate to qualifications, including teacher education. The Teacher Registration Board determines the policies under which teachers will be able to be registered, and approves registrations and the issuing of practicing certificates.

Chartered early childhood centers have an obligation annually to have a staff development program approved by their management committees. School boards of trustees have a responsibility for ensuring that teachers at their school receive appropriate teacher education. They can determine the amount and scope of the budget set aside for teacher development. In primary schools, the board usually works with the principal and staff to manage the teacher development program. In secondary schools, it is common for boards of trustees to leave the management of the program to the schools' professional staff. Tertiary councils are expected to provide for staff professional development.

Tertiary institutions are providers of teacher development services. Colleges of education provide the major contribution through "advanced studies for teachers" courses, training of associate teachers, seminars on educational issues, research findings and their dissemination, holiday courses, running contract teacher development projects, and their advisory service role. Polytechnics provide teacher development through language and computer studies. Universities provide development through their degree, diploma, and extension courses.

Accreditation/Approval

Currently, accreditation of teacher education courses is the responsibility of each college though its academic board and the New Zealand Council for Teacher Education (NZCTE). Each college of education has an academic board, usually comprising one or more members of the College Council, the chief executive officer, other senior members of the management team, and representatives of the teaching staff. The academic board is accountable to the council each year for the provision each year of a quality program. Before any course is approved as part of the college program, it must be submitted in writing to the academic board, setting out its objectives, its relationship to the overall goals and program of the college, its content, assessment strategy and procedures, time and staff allocation, and budgeted costs.

The procedures for course approval are common to all colleges. The courses must be:

- In line with college charters and goals (see section "Goals of the Teacher Preparation System," below)

- Responsive to government policy, including curriculum initiatives
- Subject to scrutiny by community committees representing subject experts, professional and community groups, Maori and Pacific Islands communities, employers, and students
- Integrated with other courses and with the total college program
- Informed by research
- Subject to regular review

Once the council has agreed on what courses should comprise the annual program of the college, the total program is submitted for approval to the Academic Programmes Committee of the NZCTE.

By 1997, it is planned that all courses of teacher education institutions that lead to nationally approved qualifications will come under the National Qualifications Framework. To be registered, courses must be subject to NZQA criteria for accreditation and quality management. Criteria for the registration of unit standards for teacher education courses are currently being developed. At this stage, it is uncertain what the precise outcome of NZQA accreditation requirements will mean for the independence of colleges to design and accredit their own teacher education programs.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

Each college is responsible for setting out its goals and objectives in its charter. These are usually defined in terms of a mission statement related to purposes or goals. In some cases, a statement of beliefs and values is added. A selection of college mission statements is provided in Appendix B.

Quality Assurance

It has always been the espoused goal of colleges of education to produce quality teachers. Their increased autonomy is encouraging them—and a more competitive environment is forcing them—to pursue this goal more vigorously. Important components of quality assurance are:

- Changes in the selection process and in the quality of students accepted for training
- The standards of work demanded of students throughout the course, and in order to graduate as certified teachers
- The consumer satisfaction of schools and boards of trustees as future employers of students
- Appraisal of lecturing staff at the college and relevant staff development
- Feedback information from research

Academic Preparation Prior to Preservice Teacher Education

Since 1989, colleges of education have been responsible for their own selection of students. Previously, all colleges were required to follow a national policy in the form of a quota, based on national, regional, and local statistics of supply and demand, national priorities, and social objectives.

Government funding for colleges today is still based largely on EFTS projections in the light of known current supply-and-demand data, national priorities, and social objectives. However, colleges have the freedom to recruit more than their EFTS quota if they have alternative means for funding these students. For the last few years, all colleges have increased student fees to help fund more places and activities. All colleges, to a greater or lesser degree, have become entrepreneurial, seeking to attract sponsorship and fee-paying (nonsubsidized) students from overseas.

The need for a better educated workforce implies higher levels of professional competence in teachers at all levels. The National Recruitment and Selection Committee (representation consists of senior staff members from each college) was established by the New Zealand Council for Teacher Education in 1989.

Early Childhood and Primary Teacher Education

Most students admitted for training for early childhood and primary teacher education are under 20 years of age. The minimum academic entry requirement for such students has been the satisfactory completion of 12 years of schooling and a qualification of 20 or less in the best five subjects of Sixth Form Certificate (with a mark of five or better in English). Students with an equivalent overseas qualification may also be admitted. Applicants 20 years or over at time of entry, without the above academic qualifications, must have evidence of recent/current study and/or recent relevant experience.

In recent years, colleges have been able to select from a larger and more highly qualified pool of people than ever before, with the result that for primary teacher education, colleges are increasingly taking students who have university experience or who have successfully gained entrance to university. It is increasingly expected of students pursuing primary teacher education that they undertake a B.Ed. degree.

Secondary Education

Students seeking a career in secondary teacher education are expected to have completed a university degree in their areas of specialty.

Other (Nonacademic) Criteria for Selection

Besides having relevant academic qualifications, teacher trainees are expected to have the right qualities, experiences, and potential to become good teachers—such as communication skills in English and involvement in cultural, sporting, social, and welfare activities—and to have the kind of attitudes that affirm New Zealand's equity and bicultural values.

Selection Procedures

While the selection process varies from college to college, the following characteristics are largely common to all.

- There is wide representation on selection panels, for example, colleges' program committees, School Trustees Associations, teachers' unions, Maori *iwi*.
- All members of selection panels receive at least a half day's training in selection processes.
- There is some moderation across panels to ensure a consistent selection process, with one member sitting on all panels.
- Some interviews take place on a *marae*, where they can be assisted by local Maori elders.
- Some colleges encourage applicants to bring a support group with them to the interview.

Nature and Content of Preservice Preparation Curriculums

Each college designs its own program on the basis of its mission and goals, and of national and community expectations. They all start from a common position of focusing on learning outcomes that prepare a "good" teacher.

The program consists of a collection of courses, or units, which are first approved by an academic board on behalf of the College Council before the courses are forwarded to the Academic Programmes Committee of the New Zealand Council for Teacher Education (NZCTE), under delegated authority from the New Zealand Qualifications Authority.

Early Childhood Education

Preservice early childhood education has developed steadily in recent years in response to growing demand for training and appreciation of quality standards. Three-year programs for early childhood workers and teacher trainees are operating in each of the colleges of education. A B.Ed. degree for early childhood education has recently been introduced. In addition, all colleges, and the Advanced Studies for Teachers Unit at Palmerston North College of Education and Massey University (through distance education), offer a comprehensive program of early childhood equivalency courses for people who are currently employed in early childhood centers but who do not have the recognized trained teachers' qualification.

Primary Education

The normal course of training for primary teacher trainees is a period of three years at a college of education, followed by two years of satisfactory teaching in a state primary school. This "Division A" course is still the main route for students aiming to gain a diploma in teaching. However, increasing flexibility in delivering courses has enabled colleges to offer their students alternative pathways to complete their teacher training.

- A four-year course has been available for a number of years for students who enroll for B.Ed. degrees as well as for a diploma in teaching. This course is also campus-based.[13]
- For a number of years, colleges of education have provided a shortened, two-year primary preservice program for university graduates entering college, and, in some cases, for those who have almost finished their degree.
- In recent years, there has been some recognition of other forms of prior training and experience as credit toward the completion of a teacher education course. In such cases, the length of course is reduced, usually by six months, for those students who can prove to the satisfaction of the college that they have already fulfilled requirements of the course.[14] Colleges are presently working with the New Zealand Qualifications Authority on the accreditation of prior learning.

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[13] If the current trend continues, the four-year B. Ed. will replace the current three-year diploma course as the norm for primary teacher education.

[14] However, accreditation of prior learning has its difficulties. It is often not easy to clearly assess the range of knowledge, understanding, and skills of informal prior learning experiences, and to equate it with what is offered at college. The task also places heavy demands on the time of college staff.

The number and range of courses among the colleges of education vary, as does the terminology used to describe them. However, in all colleges' primary programs, some courses are compulsory, while others are optional. There is a core of compulsory subjects, which is the same across all colleges. These subjects tend to relate to the nationally prescribed core-curriculum areas, which all trainees are expected to be competent to teach in primary-school classrooms. Electives, or optional subjects, tend to relate to students' personal interests and development, although students may also choose to take one or more optional subjects to strengthen their skills in specific curriculum areas.

Courses are broken down into major and minor subjects, the former being those subjects that students take over their three-year course.

Teaching Practice in Schools

All colleges recognize the crucial importance of students' gaining practical experience in schools alongside able teachers. Thus, as an integral part of their training, all students have a series of teaching practice "sections" (when they spend a period of time, usually four weeks) in a range of different types of schools. About one-third of students' training time is spent in schools. Primary trainees are attached to an associate, or tutor teacher and class. They also spend regular, shorter periods in schools as part of various curriculum courses, for example, the teaching of reading.

Colleges are regularly evaluating and improving the quality of implementing this practical component of the teacher education program. The selection and preparation of associate or tutor teachers is of crucial importance. In Wellington, the Advanced Studies for Teachers course has been organized for associate teachers. It is hoped that eventually all associate teachers will have this qualification.

Toward a Graduate Primary Profession

All colleges are committed to degree programs as the norm for primary teacher education. The process has been accelerated by the government's policy to raise primary teacher education and training to degree status, and to ensure that colleges, while remaining autonomous, become affiliated with universities and facilitate integrated degree courses.

Links with Government Curriculum Initiatives

In revising current courses and introducing new courses, all colleges are concentrating on the need to prepare their students to work with the new New Zealand Curriculum, as set out in the New Zealand Curriculum Framework, and in the supporting national curriculum statements.

Evaluation of Programs

A four-year longitudinal research project into New Zealand students' perceptions of their primary education training has recently been completed by the New Zealand Council for Education Research on behalf of the New Zealand Council for Teacher Education. The study affirms that the present New Zealand system of primary teacher education is capable of producing competent beginning teachers. Despite some criticisms of some courses, students were quick to affirm the importance of the central professional emphasis of the program: the focus on child-centered learning, the need for regular diagnostic assessment of children, the value of integrated approaches to primary school curriculum, the merits of cooperative planning, and the need for ongoing, reflective self-evaluation.[15]

Secondary Programs

Two options are available to people who wish to train as secondary teachers. For graduates and others with approved advanced qualifications, there is a one-year ("Division C") course. Most secondary teachers have been trained by this route. People with University Entrance or acceptable Sixth Form Certificate may be accepted into a Division B course, which involves up to four years consecutive or concurrent university and professional teacher training study. All colleges of education provide both division B and C courses.

Special Education Training

Colleges also provide various courses in teaching people with special needs, with reading difficulties, and with visual or hearing impairments. Students who wish to become speech/language therapists enroll for a four-year Bachelor of Education (speech-language therapy) degree at the University of Canterbury. Postgraduate courses for teachers who wish to be trained as teachers of students with special needs are available at Auckland, Palmerston North, Wellington, and Christchurch Colleges of Education. Specialist postgraduate training courses for teachers of the deaf and visually impaired are located in Auckland and Christchurch. There is also a postgraduate course for bilingual (Maori/English) teachers available at the School of Education at the University of Waikato.

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[15] *Windows on Teacher Education*, Margery Renwick and June Vize, 1990–93.

A number of colleges offer a nationally accredited course for community workers in the field of disability. The course was set up at the instigation of the New Zealand Society for the Intellectually Handicapped, and other service providers, to fulfill a training need.

Other Courses

The recent changes have encouraged colleges to initiate a range of training courses, certificates, and diplomas to meet community needs, as exemplified in the following situations.

- Since 1987, the Auckland College of Education has offered the "Introduction to Teacher Training" Access course, which is targeted at Maori and Pacific Islands people over 20 years of age. The course is designed to better inform students of the teacher training opportunities that exist for early childhood, primary, and secondary education.
- Dunedin is preparing a package for community tutors to assist in the training of people who teach in the community, such as health educators.
- Wellington has a small unit, the School of Training for Trainers, that offers skills-based training to staff training officers, training advisers and administrators, managers, and in-service educators.
- Palmerston North offers a certificate in educational management.
- Auckland has been conducting a summer school program since 1991 in such subjects as computer education, mainstreaming, and management.

Assessment

There have been criticisms in the past of the light workload and the standard of work expected of students, and of the methods used to assess student work. A recent survey of student perceptions of their teacher training experience, carried out over a period of four years, confirms that these criticisms are still being aired by some.[16]

However, all colleges believe that they are being more stringent in their standards of assessment, and in an increasingly competitive market, are more prepared to reject students they do not consider will make successful classroom teachers. To be approved, all courses must have clear statements on assessment procedures and methods. Stronger links with universities are also encouraging more rigorous standards of assessment. All colleges write profiles of graduating students according to agreed-on guidelines.

The Christchurch College of Education has developed a set of competencies each trainee should have to be a competent teacher. The move is a response to the prevailing educational interest in measuring definable learning outcomes, especially skills development, which is being actively pursued by the New Zealand Qualifications Authority and the Teachers' Registration Board. Each of the college courses has been scrutinized against these competencies, and restructured to focus on developing the competencies. An important role of the professional studies tutor is to assist students to develop various skills and competencies in the context of overall professional development.

Differences in the Nature and Content of Teacher Preparation Programs

Because New Zealand is a relatively small country, with a state education system, a national curriculum, and a relatively coherent philosophical view of education that focuses on child-centered learning and equity and achievement objectives, it is not surprising that the programs of the different providers are in some respects remarkably similar. They all seek to prepare their students for teaching in any part of the country.

It is also true, as already remarked, that there are significant differences in both emphasis and organization. As observed above, the increasing opportunities for colleges to diversify their activities and functions have tended to increase the individual differences between the colleges in what they offer and in how they operate. These differences are influenced by size, geographic locality, a community's ethnic mix, its proximity to other education institutions (particularly to universities and polytechnics) and the collective and personal philosophies of its staff. Some of these differences have already been commented on.

On the other hand, there are major centralizing forces at work that could, in the future, bring about even greater coordination and cohesion among the providers of teacher education. The same government education reforms of the last five years, which deliberately brought about greater autonomy for the institutions, have, in some significant areas, strengthened the authority of the center. Lines of accountability to the state are now much stronger than they were previously. The new qualification structures and arrangements are already tightening up courses by providers in readiness for the day when all their programs will lead to nationally recognized qualifications. The Teachers' Registration Board (TRB) has established clear guidelines and criteria for trainee graduates to be provisionally registered. And the New Zealand Council for Teacher Education, supported by improved communications and wider opportunities, is bringing together staff from the various colleges to work collaboratively.

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[16] Ibid.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

As stated above, colleges of education are autonomous institutions. However, since their core service is to prepare trainees for teaching in schools and childhood centers, colleges ensure that their programs closely take into account national education policies and guidelines relating to what takes place in schools, for example, curriculum, assessment, qualifications. All colleges have revised their programs to incorporate the new national curriculum emphasis.

LICENSING REQUIREMENTS

Initial Requirements

Registration is not a compulsory requirement for teachers in New Zealand. Few teachers in the early childhood centers and tertiary institutions are registered teachers. On the other hand, employment by a school board of trustees and acceptance as a professional teacher in the state school system is virtually impossible without being registered. Boards of trustees, as good employers, are expected to require their staff to register and to have current Practicing Certificates. Most private schools require their teachers to be registered. Some teachers in tertiary institutions are also registered.

The registration system assists employers of teachers by providing a minimum assurance of quality and a continuing standard by which the minimum quality can be measured.

The Teachers' Registration Board

The Teachers' Registration Board is an independent Crown Agency established under the 1989 Education Act with the following responsibilities:

- To determine the policies by which teachers will be registered
- To maintain a register of teachers
- To approve registration of different categories and issue practicing certificates
- To decide if a teacher's name should be removed from the register
- To provide boards of trustees with the names of teachers with canceled registration

Requirements and Process

To become fully registered:

- Teachers must undergo a formal application procedure, which determines whether they are of good character and fit to be teachers. Since March 1993, this includes vetting for civil or criminal convictions.
- Teachers must prove they have been satisfactorily trained to teach, having completed a teacher education qualification, which has been appraised and regarded as suitable for teaching in New Zealand.
- Teachers must reach a "satisfactory" standard of teaching, measured against listed criteria, and judged by other experienced teachers.[17]
- Teachers must undergo a supervised period of "internship" for two years, and be found satisfactory; if they are overseas teachers or New Zealand teachers returning after a lengthy break from the profession, they must be supervised for at least three months to determine whether they are familiar with current curricula and procedures in the general education system.
- Teachers must maintain the standards listed above, and be able to prove that they have met professional criteria for registration for two of the past five years.

Teachers who successfully meet the criteria for registration are issued a Practicing Certificate by the Teachers' Registration Board on payment of a small fee. The certificate is valid for three years from the date of issue.

There are three categories of registration:

- Provisional registration for new entrants to the teaching profession, or for those teachers who have not previously been registered
- Registration, subject to confirmation, for an experienced teacher from overseas, or for a New Zealand teacher who has had some time away from teaching
- Full registration for a teacher who has, within the past five years, satisfactorily completed two years uninterrupted employment as a teacher in New Zealand

To move from provisional to full registration, a teacher must have completed a total of two years' consecutive teaching in an approved New Zealand education institution, and be recommended by the principal or head teacher of the school or institution employing the teacher to the effect that he or she is a satisfactory teacher for practicing in the New Zealand education system.

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[17] A teacher is considered satisfactory who enables and encourages pupils to learn; has competence in the NZ curriculum; has appropriate teaching techniques and pupil management skills; plans and prepares programs of work; and contributes toward the work of the school or learning center/institution as a whole.

The responsibility for determining whether a teacher meets the requirement for registration lies with the principal or head teacher of the school and/or, in some cases, with the board of trustees. Examinations, or similar forms of testing, are not used in making an assessment of a teacher's competency.

Universality of the Practicing Certificate in New Zealand Education

There is no sector differentiation, and no subject or geographical variation in the registration of teachers in New Zealand. A teacher who is registered is deemed satisfactory to teach and can apply for teaching positions in a primary or secondary school, in an early childhood center, or in a tertiary institution. Such flexibility enables institutions to employ teachers from a range of different learning and training backgrounds. In practice, registration is seen to be an appropriate system for the school sector. Registration and salary payments are totally separate issues.

Licensing Reauthorization

Renewal

The Practicing Certificate must be reapplied for every three years, and is renewed for teachers who can demonstrate that they have taught satisfactorily for two of the last five years. If teachers do not qualify for renewal, registration expires. They must then reapply for registration if they wish to remain on the register of teachers. If a teacher fails to renew a Practicing Certificate, registration expires after five years from the initial date of registration. A teacher's registration also expires if the "provisional" registration, or the registration "subject to confirmation," is not confirmed.

Cancellation

The TRB can cancel or refuse a registration in the following cases, on the recommendation of the principal or head teacher of a school/institution where the teacher is employed/has taught:

- When a teacher is convicted of an offense for which the offender could have been liable for imprisonment for a term of twelve months or more, and is thus no longer deemed to be "of good character" and "fit to be a teacher"
- When a teacher has resigned or been dismissed because of disciplinary action taken against him or her by the board, and is thus no longer deemed to be "of good character" or "fit to be a teacher"
- When a teacher has resigned or been dismissed because of competency proceedings initiated against him or her under the relevant employment contract, and is thus no longer deemed to be a "satisfactory teacher"

For each case, the TRB will appraise the information and decide whether to proceed, or ask for more information. In the case of his or her removal from the register of teachers, a teacher has the right to appeal to the High Court against the TRB decision.

Status of Qualifying Conditions

Because it is not legally binding for teachers to be registered, or for boards of trustees (or other employers) to hire a registered teacher, a nonregistered teacher may be appointed to any position in the education service. As noted above, only some teachers in early childhood centers and in tertiary institutions are registered. School boards of trustees are likely to appoint nonregistered teachers in cases where a vacant position cannot be filled by a registered teacher, for example, for teachers of Maori language and/or culture, for specialist teachers, or for short-term reliever, or substitute, teachers.

However, as noted above, it is a generally expected procedure in New Zealand that, wherever possible, registered teachers should be appointed to vacant teaching positions in schools.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

New Zealand has recognized for many years that teacher education is a continuing process of education and training throughout a teacher's career. It is generally accepted that the first years in the classroom represent a continuation of the preservice training students have received in the college, and the first stage of their ongoing professional development.

Advice and Guidance Program

As noted in the previous section, beginning teachers are not eligible to become fully registered teachers until they have completed at least two years' classroom experience. During this time, it is expected that they will receive support and guidance from experienced teachers on the staff and attend professional development courses. This "advice and guidance program" (or internship/induction) is available to all beginning teachers during their initial two years. In order to gain the approval of the TRB, this program must be made available in a written form from the schools where beginning teachers are employed.

The details of the program vary from school to school and from person to person, and also according to whether the beginning teacher holds a full-time or a part-time position. However, the TRB has set out the following guidelines of what is necessary for acceptable programs:

- Resource and personal support from colleagues working in the same curriculum area, school, or center
- Receiving classroom visits and written lesson appraisals on progress toward meeting the criteria for registration
- Visiting and observing other teachers
- Meeting with senior staff and other teachers to clarify the wider aspects of the beginning teacher's work and responsibilities, including professional development
- A written record of the program, containing the advice and guidance received and the extent of participation in planning the corporate life of the school or center

It is common for the advice and guidance to be more intensive in the first two years.

Professional Development Opportunities

To assist the beginning teacher's professional development, all schools employing a beginning teacher are entitled to additional time (in the form of an additional 0.2 teaching entitlement per week in his or her first year). Primary schools use this time to release either the beginning teacher and/or other teachers in the school to work with the beginning teacher. Nonbeginning teachers released are experienced tutor/assistant teachers who have designated responsibilities to work with the new teacher. The additional time in secondary school is given entirely to the beginning teacher, whose first-year teaching workload is represented by 0.8 of the teaching entitlement of a fully registered basic teacher.

There is little doubt that beginning teachers in both sectors benefit from this entitlement, although there appears to be considerable variation in the amount of time used specifically for professional development. Most beginning teachers seem to be satisfied with the amount of time they receive and the use they are able to make of it. It is common for beginning teachers to attend at least one and frequently two or more professional development courses during the year. Some, especially secondary teachers, are given the opportunity to visit other schools and to observe lessons.

In-service Education for Fully Registered Teachers

New Zealand has, for many years, accepted that quality programs of professional development should exist for all teachers, from the time they are accepted into a preservice teacher education program. The imperative for an aging teaching force to adapt to and implement the changes that have taken place in New Zealand education over recent years has heightened awareness of the importance of continuing teacher education. But, as noted above, there is no compulsory requirement for New Zealand teachers to undertake professional development other than those activities organized for staff by local management as part of its annual program.

There exists a range of professional development opportunities for teachers.

Many are provided by the local institutions themselves as part of their charter responsibilities. There is evidence to suggest that there is more "in-house" staff development underway now than there was previously. On average, the budgeted amounts for teacher development increased by 30 percent per school from 1991 to 1993. On average, schools in 1992 spent 3.5 percent more than budgeted.

For secondary schools, the most important onsite activities in 1992 were teacher effectiveness activities[18] (35 percent), curriculum-related activities (29 percent), and school administration (21 percent). For primary and intermediate schools, the most important on-site activities were curriculum-related (57 percent) and teacher effectiveness (14 percent). Such activities usually range between one or two hours' to one or two days' duration. They are held during or after school hours, or during holiday time. Some schools allow individual teachers or faculties to spend time with other schools for their professional development.

There are also many opportunities for individual teachers to improve their competency. Some of these opportunities are provided through national avenues, and are advertised through the journal *New Zealand Education Gazette*. For example, the Ministry of Education contracts out teacher development projects, mainly to colleges of education, to help individual teachers become familiar with the new national curriculum developments, and to try out some new ideas in the classroom in a supported environment. Over 43 percent of New Zealand schools participated in at least one of the Ministry of Education teacher development programs in

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[18] That is, activities in such areas as assertive discipline, accelerated learning, etc.

TABLE 10.14
Participation by Staff in Teacher Development Activities

	Secondary Schools (%)			Primary/Intermediate Schools (%)		
Type of Activity	All Staff	Most Staff	Some Staff	All Staff	Most Staff	Some Staff
On-site activities	32.6	9.7	57.7	34.9	32.6	32.5
Conferences/seminars	5.8	7.3	87.0	6.4	17.6	76.1
Courses of study	0.6	0.6	98.8	0.3	12.1	47.7

1992. The programs normally take place over a school term. The models used in these programs vary considerably, but all cover the two essential ingredients of providing input and giving time for teachers to plan, implement, and reflect on progress. Contractors are required at regular intervals to report on their ongoing monitoring and to relay their reflections on the program.[19]

An autonomous national body, the Teachers' Refresher Course Committee, provides a series of in-service, week-long courses for teachers during holiday periods, focusing on topics suggested by teachers themselves.

Supported by government funding, the New Zealand Council for Teacher Education facilitates a number of teacher exchange awards to New Zealand teachers for positions in foreign countries significant to New Zealand.

As noted above, colleges of education are increasingly involved in teacher in-service education, offering a range of courses and programs for practicing teachers wishing to improve their qualifications and professional skills through postbasic level study or in-service training. All colleges provide Advanced Studies for Teachers (AST) courses, through which teachers (mainly primary) are able to gain qualifications and (in some cases) higher salaries. Two advanced teaching qualifications are available to teachers based on these courses: the Higher Diploma of Teaching and the Advanced Diploma of Teaching. Palmerston North College of Education provides the opportunity for these qualifications to be obtained through distance education, or correspondence programs. In 1992, some 2,500 teachers were involved in the advanced-study courses provided by the colleges of education, or in the correspondence course of the AST.

Continuing education opportunities for teachers are also provided by the universities through a range of applied postgraduate qualifications (for example, Massey University offers a Diploma in Special Education, Victoria University a Diploma in Education Studies, and Waikato University a Master of Science and Ph.D. in science education). The Research Affiliateship Scheme, administered jointly by the University of Canterbury and the Ministry of Education, has operated since 1976. The scheme provides Christchurch teachers with the opportunity to undertake research projects in areas relevant to current preschool, primary, intermediate, or secondary school practice or needs.

Subject associations and teacher professional organizations also provide their members with quality professional development courses. Some publish magazines on a regular basis, which include information on new materials, methods, and other aspects of professional interest to teachers.

For primary and secondary teachers, teacher development conferences and seminars attended off-site are most commonly curriculum-related. Teachers participate in these courses in their own time, outside classroom hours.

Tables 10.14 and 10.15 represent staff participation levels, by type of activity, in teacher development activities and participation in Ministry of Education contracts by type of school.

Inclusiveness

Consideration is given to provide in-service models that take into account the particular learning needs of subject groups, women, and Maori and other ethnic minorities; and the different circumstances of urban and rural teachers, of beginning and experienced teachers, of teachers in the classroom and teachers in management positions. The Curriculum Functions and Contracts Management Division of the Ministry of Education has this year commissioned a research project through the Research & Policy section to identify which groups of teachers are, or are not, getting access to current professional development projects provided by the Ministry of Education.

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[19] In addition, the Ministry of Education contracts, through its Research Division, with an external evaluator to monitor specific teacher development programs. To date, there have been eight such contracts, which have evaluated a total of 25 programs. A further evaluation of 10 programs is currently being monitored.

TABLE 10.15
Participation in Ministry of Education Contracts

	Participated in Ministry of Education Contract (%)		
Type of School	Yes	No	Total
Secondary	50	50	100
Full Primary	36	64	100
Contributing Primary	47	53	100
Intermediate	53	47	100
All schools	43	57	100

TABLE 10.16
Estimated Budgeted and Actual Teacher Development Expenditure, 1992 and 1993

School Type	No. of schools	1992 Budgeted	Actual	1993 Budgeted
Full primary	1169	NZ$3,556,036	NZ$3,626,732	NZ$3,645,324
Contributing Primary	928	4,127,899	4,253,207	4,455,193
Intermediate	147	1,017,374	1,141,397	1,149,224
Form 1 to 7*	78	822,635	825,809	875,479
Area	40	433,750	469,900	492,282
Form 3 to 7	241	3,456,334	3,455,636	3,907,654
Special**	50	199 709	234 459	172 696
TOTAL	2,653	13,613,737	13,997,140	14, 697,857

*Includes Forms 3 to 7 with Attached Intermediate schools.
**Includes Primary and Composite Special schools.

Assessment and Financing of Professional Development Opportunities

For early childhood centers, there are two major sources of funding: (1) their own resources and (2) centrally held funding, which is currently divided between two national providers who provide both professional development (normally through seminars and courses) and advisory support (through work in centers).

Schools have three sources to draw on. First, the schools themselves have a commitment to budget for professional development. In 1992, approximately NZ$14 million was spent by primary and secondary schools on professional development.[20] The average expenditure per full-time equivalent teacher was NZ$548 (NZ$616 full primary; NZ$335 secondary). The majority (53 percent) of this funding was spent on teacher release and about one quarter was spent on course/seminar/conference fees (23 percent). Another major area of expenditure was travel and accommodation (approximately 12 percent).

Second, schools have the use of advisers. Funding for this teacher support service is NZ$16 million, which provides for a service available to all schools on request.

Third, there is funding held centrally by the Ministry of Education to support professional development in national priority areas—that is, those that support new curriculum developments and those that support schoolwide developments.

A limited number of study awards are available for teachers seeking advanced qualifications in special education. In some cases, school boards of trustees fund teachers' participation or teachers pay their own costs.

Table 10.16 lists estimated and actual expenditures, by school type, for teacher development in 1992 and 1993.

No research has been conducted in New Zealand as regards professional development for teachers and its relationship with factors like years of experience, level of responsibility, participation in professional development opportunities, salary, and career opportunities. In-service education is an expected activity for all teachers.

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[20] This may understate the total expenditure on teacher development. A school may draw on other funding sources to support teacher development, e.g., on a principal's discretionary fund.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

There are both national and local policy issues and problems with respect to teacher preparation and professional development in New Zealand.

Following the reforms of educational administration, one noted tension exists in the extent of the autonomy of the colleges and other tertiary institutions in relation to government policy directions. Although the prime function of colleges of education is to prepare teachers to work in New Zealand schools, there is no mechanism for ensuring that they respond to changes in national policy that affect the school sector. Thus, there can be no certainty that newly trained teachers will be prepared to meet nationally specified requirements, including curriculum and assessment policies. A mechanism must be discovered that does not unduly restrict the institutions, nor contravene the autonomy they were granted in the 1990 amendment to the Education Act. A recent amendment to the Public Finance Act (in 1993) requires Crown Entities to be funded for specified outputs. The specification of the output for teacher education funding may be a means to resolving this issue.

The impact of the introduction of the National Qualifications Framework on teacher education is still being discussed. The Ministry of Education's role as funder and regulator of schools who employ the teachers needs further exploration. The tension between the need for some central specification of curriculum and the need for local control in schools is mirrored in the relationship between government and providers of teacher education.

The relationship of the National Qualifications Framework to the wide range of in-service opportunities available for teachers has yet to be considered.

Other, more local policy issues and problems are listed above under the section "Policies Guiding Preservice Teacher Education."

Appendix 10.A

Note: It is possible to move between different types of institutions in each sector.

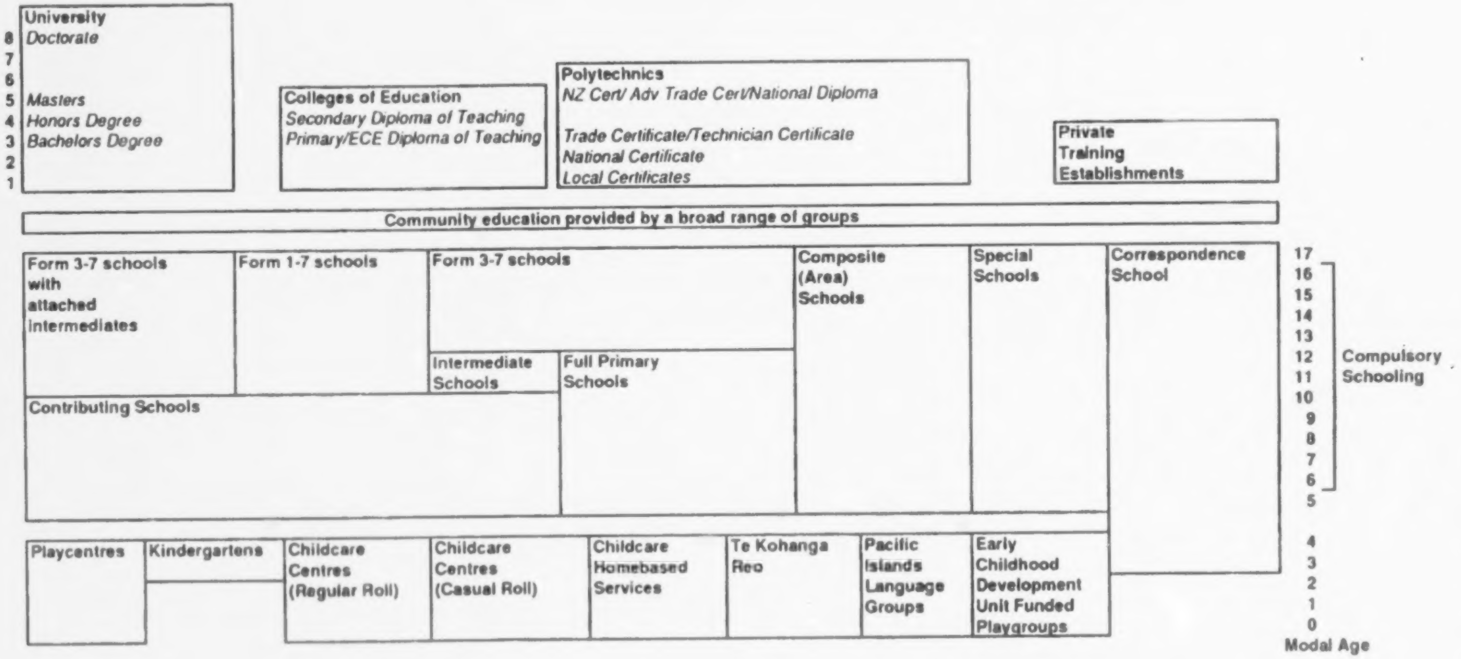
University
8 Doctorate
7
6
5 Masters
4 Honors Degree
3 Bachelors Degree
2
1
Colleges of Education
Secondary Diploma of Teaching
Primary/ECE Diploma of Teaching
Polytechnics
NZ Cert/ Adv Trade Cert/National Diploma
Trade Certificate/Technician Certificate
National Certificate
Local Certificates
Private Training Establishments
Community education provided by a broad range of groups
Form 3-7 schools with attached intermediates
Form 1-7 schools
Form 3-7 schools
Intermediate Schools
Full Primary Schools
Contributing Schools
Composite (Area) Schools
Special Schools
Correspondence School
Playcentres
Kindergartens
Childcare Centres (Regular Roll)
Childcare Centres (Casual Roll)
Childcare Homebased Services
Te Kohanga Reo
Pacific Islands Language Groups
Early Childhood Development Unit Funded Playgroups
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
Modal Age
Compulsory Schooling

FIGURE 10.A-1
The new structure of the New Zealand education system.

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Appendix 10.B

A SELECTION OF COLLEGE MISSION STATEMENTS

Auckland College of Education

Mission

To be at the forefront of educational development and to provide excellence in education by preparing, developing, and supporting teachers, social service workers, and educators.

Continuing Goals

Related to the Treaty of Waitangi, performance standards, student rights and responsibilities, equity, good employer, staff expertise and development, environment, efficiency and effectiveness, communication, research, in-service and postgraduate services, entrepreneurship.

Christchurch College of Education

Purpose and Mission

The mission of the Christchurch College of Education is to produce high-quality teachers and other graduates at the tertiary level, and to assist and enable postgraduate students to acquire advanced knowledge and skills. The emphasis in the college is on excellence, measured in terms of the extent to which graduates are skilled communicators, able to establish and maintain positive relationships, confident in their knowledge skills and ability, competent in curriculum knowledge and teaching skills, knowledgeable about human development and the learning process, enthusiastic and adaptable, and able to show all students that they value them and appreciate their differences.

Dunedin College of Education

The Mission of the Dunedin College of Education is to provide:

- Leadership and quality professional services in learning, teaching, caring, as well as training in management
- Professional services and accreditation to people requiring qualifications in teaching
- Professional services to groups and individuals seeking knowledge, skills, and support in teaching, learning, communicating, caring, training, educational management, and leadership
- Access to the local, national, and international community to the knowledge, skills, and resources of the college
- Leadership in curriculum development and research into teaching and learning

Values

The college acknowledges and values:

- Active commitment to biculturalism
- Diversity and individual difference
- Active commitment to the principles of equity
- Supporting the welfare and development of children, clients, and all learners
- Professional development and well-being of staff
- Excellence in leadership, teaching, and support
- Flexibility and critical thinking in planning, methodology, and curriculum
- Accountability to the community it serves for the responsible and efficient use of resources
- Consultation and cooperation with the community

11

APEC Report on Teacher Education and Professional Development: The Case of Singapore

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Education, Nanyang Technological University

CONTEXT

Definitions

Table 11.1 provides definitions of educational levels in Singapore.

Educational Systems and Student Population

In this APEC member report on Singapore, reference will be made to the new education structure for both primary and secondary levels of schooling that was implemented in 1991. Statistical data on student enrollments, teachers, and school types are based on the most recently available Ministry of Education annual reports (see References).

The Singapore Education System, as it has evolved, today provides for six years of primary schooling and for four or five years of secondary schooling. For students who are academically inclined, this leads to a two-year, pre-university course at a junior college, or to a three-year, pre-university course conducted in a pre-university center or centralized institute.[1] The present-day structure of Singapore education is based on the recommendations of the 1991 report of the Review Committee, entitled "Improving Primary School Education." The report was an initiative by the Singapore government to restructure the existing educational system, which was based on the "Ministry of Education Report, 1978." The Review Committee sought to address needs related to Singapore's economic growth in the 1990s and beyond. Among these are the goals of providing all children with at least ten years of general education and of maximizing the individual potential of each child.

Important features of the educational system include a policy of bilingual education, teaching a course on civics and moral education as a compulsory school subject, and the provision of a broad-based curriculum consisting of core and elective subjects. There is an emphasis on learning two languages and on mathematics in primary school. The bilingual policy reflects the multiracial, multilingual, and multireligious makeup of Singapore's population of 2.8 million (1992). All schoolchildren are required to learn English as well as their respective mother tongues. The latter are defined as Chinese (with Mandarin as the spoken form) for the Chinese community, Malay for the Malay community, and Tamil for the majority of Indians. As of 1994, there is a new provision to allow children from the North Indian ethnic communities to use their respective minority languages as their mother tongues. These are Bengali, Gujarati, Hindi, Punjabi, and Urdu.

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[1] There are four Centralized Institutes run by the Ministry of Education to cater to academically weaker secondary school graduates who aspire to pursue a pre-university course.

TABLE 11.1
Definitions of Educational Levels

Definitions	Grade/Level	Age Range	Type/Level of Education for Teachers
Preprimary schooling	Kindergarten Yr 1 & Yr 2	4–5 years	GCE "O" Level or less
Primary schooling	Primary One to Primary Six	6–12 years	GCE "A" Level and Diploma in Education
Secondary schooling	Secondary One to Four or Five*	13–17 years	Pass or Honours Degree and Postgraduate Diploma in Education
Postsecondary schooling	Pre-University Yr 1 to Yr 3 or Junior College Yr 1 to Yr 2	17–19 years	Honours or Pass Degree and Post-graduate Diploma in Education
Preservice teacher preparation	Primary School; Secondary School & Junior College Level	19 and above 22 and above	NA

*Secondary school students are streamed into one of the following courses: a four-year Special course, a four-year Express course, or a five-year Normal course.

The Ministry of Education (MOE) in Singapore operates as the central governing institution of the national school system. It is responsible for the formulation, implementation, and coordination of educational policies at the primary, secondary, and postsecondary levels. School principals are expected to implement official guidelines on the subject curriculum, semestral assessments and examinations, and the streaming of students according to their academic performance in national examinations. The MOE is also responsible for recruiting, accrediting, and deploying trained teachers at the school system level to ensure that schools are adequately staffed. It also has an important part to play in coordinating the in-service training and professional development of teachers.

In 1992, the total student population was 451,249 (or about 17 percent of the total Singapore population). This number includes children from the "primary one" (first-grade) level to those in the postsecondary level. Of the total, 60 percent, or 270,754, were primary school students, and 40 percent, or 180,495, were secondary and postsecondary level students. In terms of enrollment by gender at the primary level of schooling, there were 104,974 female students (40.7 percent) and 152,782 male students (59.3 percent). At the secondary level, the proportion of the total male-female students was almost equal: 94,809 female (49.9 percent) and 94,947 male students (50.1 percent), giving a total of 189,756 students in the year 1990. The completion rate for primary schooling was 86 percent in 1991. In the same year, 65 percent of students who proceeded to the secondary level obtained "passes" in at least three subjects at the General Certificate Examination "Ordinary" Level (GCE "O" Level),[2] taken at the end of four or five years of secondary education.

The percentage distribution (1992) of students by ethnic group in Singapore primary schools is largely similar to the ethnic composition of the population: 75.9 percent Chinese, 15.9 percent Malay, 7.2 percent Indian, and 1.3 percent "other" (a census category used to refer to Singaporeans of other ethnic groups). At the secondary level of schooling, the percentage distribution was slightly different: 83.4 percent Chinese, 10 percent Malay, 5.7 percent Indian, and 0.9 percent "other." Of the three main ethnic categories in Singapore's population, the pass rate at the Primary Six Leaving Examination (PSLE) for children from the Indian and Malay communities has been much lower than for the Chinese community. For example, in 1990, 20 percent of Indian students failed the PSLE, compared to 9 percent for Chinese students. Similarly, the rate of access to junior college education was smaller for the Indian candidates than for the ethnic Chinese candidates: In 1990, 28 percent of Indian candidates secured places in junior colleges compared with 40 percent of Chinese students.

Matriculation Tracks

Streaming by academic ability is practiced at the primary and secondary school levels. At the end of the first four years of primary education, "primary four" students (age 9) sit for a streaming examination. On the basis of their performance in English, in their mother tongue, and in mathematics, students are placed in one of three language streams: (1) the English-Mother tongue One (EM1); (2) English-Mother tongue Two (EM2); or English-Mother tongue Three (EM3) (see Appendix 11-A). This new school structure is an attempt to differentiate the curricular requirements of primary students at the upper primary level. Those who are academically slower will be given more curricular time to learn mathematics and English, with less emphasis on the mother tongue. Other subjects taught at primary five and six are science, social studies, physical education, civics and moral education, music, arts and crafts, and health education. Primary six students sit the PSLE, which is a placement examination designed to track students into three secondary courses: the Special, Express, and Normal courses.

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[2] All students sit the Cambridge GCE "O" Level examination at the end of their secondary education. The results of this examination determine whether they obtain a place at the junior colleges or at the centralized institutes that offer a three-year, pre-university course.

Students in the top 10 percent of the PSLE cohort can expect to enter the four-year Special course and sit the GCE "O" level examination (see Appendix 11-B). They are required to pursue two first languages and seven other examination subjects. In 1992, about 54 percent of students were enrolled in the four-year Express course. They take their mother tongue as a second language. Like the Special course students, they sit the GCE "O" level examination at the end of four years and take eight to nine examination subjects. Those who are academically inclined compete for pre-university places in the 14 junior colleges. At this postsecondary level, they are required to take three to four "A" level subjects and "General Paper" (which is a compulsory English-language mastery paper that is designed to test students' ability to express their opinions and maturity of thought on current affairs). In addition, they are required to sit Chinese/Malay/Tamil as a compulsory subject at the Cambridge "A" level examination.

The third track is the Normal course. It is further differentiated into Normal Academic and Normal Technical courses. These are five-year courses designed for students who are academically weaker. Students sit the GCE Normal-level examination in the fourth year and proceed to a fifth year for the GCE "O" level examination if they do well. The Normal Technical course is a new feature of the secondary school system. Unlike the Normal Academic course, which offers a similar range of academic subjects as those found in the Express course, the Normal Technical curriculum offers four core subjects (English, mathematics, Chinese/Malay/Tamil, and computer application). Students in this track are not required to take more than a total of seven core and elective subjects. About 15 percent of the PSLE cohort is expected to enter this course, and the remaining 25 percent enters the Normal Academic course.

School Systems

Given Singapore's compactness as a highly urbanized and industrialized island (the total land area is 639.1 sq. km, inclusive of the smaller islands), there is no geographical variation in school type. In 1992, there were 345 schools, consisting of 187 primary schools, 139 secondary schools, 14 junior colleges, and 4 centralized institutes (which offer a curriculum specializing in commerce). Administratively, all schools come under the purview of the MOE. They receive their funding, students, teaching personnel, and other resources from the MOE. Singapore schools are classified in three main types: (1) Government Schools (of which there are 145 primary schools, 99 secondary schools, and 9 junior colleges); (2) Government-Aided Schools (42 primary schools, 28 secondary schools, 5 full schools, and 5 junior colleges); and (3) Independent Schools (8 in total). Starting in 1994, the MOE has also identified 6 schools that will enjoy the status of Autonomous Schools. These schools will receive additional funds to allow them to develop more enrichment programs for their students. In terms of administrative and curriculum matters, they are similar to the other government schools.

The Government-Aided Schools, which are managed as grant-in-aid establishments, comprise two categories. The first category consists of the Christian Mission Schools, founded before the 1940s. They are affiliated with denominations such as the Anglican or the Methodist churches, or the Catholic orders, like the Infant Jesus, the Canossian, and the De La Salle orders. The second category of Government-Aided schools began as Chinese clan-schools, founded and financed by Chinese clan associations. Today, they operate in much the same way as do other schools in terms of their administrative and curricular structures. The eight Independent Schools are a recent feature of the Singapore school system, dating back only to 1989. Operationally, they enjoy greater autonomy than do the other schools and receive bigger grants from the government to develop school programs to cater to their more selective student clientele—students who are admitted on the basis of their stronger academic results at the PSLE examination.

BACKGROUND ON THE TEACHING FORCE

Basic Characteristics of the Teaching Profession

Out of the total of 19,842 teachers in Singapore in 1992, 69.2 percent were female. The numerical imbalance of female to male teachers is pronounced at all levels of education: 74.7 percent at the primary, 62.8 percent at the secondary, and 63.8 percent at the postsecondary. The age profile of Singapore's teachers is bimodal in distribution, with teachers who are 45 years of age or older making up 44.2 percent of the teaching force, and those who are 32 years or younger accounting for 28.4 percent. Because the optional retirement age for many of the older teachers in Singapore is 55, there is clearly a need to replenish the teaching force over the next five years.

In 1992, two-thirds of the teachers were nongraduates and one third were university graduates. Out of the total primary teacher population of 10,629, 61.2 percent had GCE "O" level qualification or its equivalent, while 34.6 percent had GCE "A" level qualification. Starting in 1980, primary teachers in Singapore were drawn largely from the pool of GCE "A" level holders. This was not the case in the 1960s and 1970s, when the minimal level of academic attainment required of primary teachers was a GCE "0" level qualification.

Graduate teachers are deployed largely in secondary and postsecondary schools. Among secondary teachers, 61 percent had a "pass" or an "honors" degree. Of the 1,625 junior college teachers in 1992, 95 percent had at least a pass degree, if not an honors or master's degree. Starting in 1990, there was a significant change in the policy of recruiting and training primary teachers in the interest of raising the quality of primary education and the status of the teaching profession. For the first time, university graduates were recruited and trained for primary school teaching. This resulted in 4.1 percent of primary level teachers being graduate teachers in 1992, a number that will increase in the coming years. The commencement of a new four-year degree course for the training of primary school teachers in 1991 provides yet another source of graduate teachers for primary schools.

Teachers in Singapore can be categorized in two ways: according to their academic qualification (graduate or nongraduate teachers), and according to their deployment by school level and subject specialization. Primary teachers are trained as generalist teachers and are expected to teach more subjects than secondary or junior college teachers. The latter are recruited and trained as subject specialists. There is subject specialization in the primary school with regard to the teaching of the mother tongue and to the civics and moral education course. Both graduate and nongraduate teachers who have been identified to teach Chinese, Malay, or Tamil as subjects are trained to handle all levels of the primary school mother tongue program. There is also provision for the training of specialist art, music, and home economics teachers for secondary schools. However, to increase their deployability, they are trained to teach a second subject as well.

The MOE, through its Establishment, Recruitment, and Training Branch, is actively involved in the recruitment and employment of new teachers. This is carried out jointly with two other agencies: the Education Service Commission (ESC)[3] and the National Institute of Education (NIE). The ESC has the function of appointing and confirming teachers and the promotion of teachers in the education sector. It ensures that guidelines on the minimal educational qualifications are adhered to in the selection and employment of new teachers. Each year, the MOE determines the number of trainee teachers that will be recruited for professional training at the NIE. This is based on the annual manpower estimates for different categories of teachers. At fixed times in the calendar year, the NIE advertises its different preservice training programs in the national newspapers (the *Straits Times*), and invites applicants for primary and secondary school teaching.

Admission into preservice training programs is centrally administered and controlled by means of a selection procedure involving the MOE, the ESC, and the NIE. Applicants with GCE "A" level or degree qualifications who are shortlisted (based on a set of criteria developed by the three agencies) are subsequently interviewed. The interview panel is made up of representatives from the MOE, the ESC, and the NIE. Its task is to decide on the suitability of potential teacher recruits for employment as education officers. Successful applicants undergo a full-time training program held at the NIE and enjoy teaching bursaries or scholarships for the duration of their training. On completion of preservice training, they will be employed to teach in schools.

The Public Service Commission has played an important role in the recruitment of potential graduate teachers. It has a scheme of selecting and awarding overseas merit scholarships for teaching to especially qualified GCE "A" level students in Singapore. On completing their university education in prestigious universities in the United Kingdom, for example, these scholars are required to undergo a year's Postgraduate Diploma in Education course at the NIE before they teach in secondary schools or junior colleges.

Characteristics of Teaching Employment

Teachers who are appointed to the Government Education Service are deployed to teach mainly in government schools and are considered civil servants. Those who are appointed by the Government-Aided Schools and Independent Schools are considered Aided School and Independent School employees, respectively. Like other government employees, teachers who joined the Civil Service before 1973 enjoy service conditions pertaining to holidays, leave schemes, and medical benefits. Most teachers who joined teaching before 1980 are on the government's Pension Scheme. They can work up to 60 years of age. Teachers who have completed up to $33\frac{1}{3}$ years of service are entitled to a gratuity and a monthly pension on their retirement.

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[3] The Education Service Commission (ESC) is a branch of the Public Service Commission (PSC). The latter is a government body that handles the appointment of teachers and the awarding of scholarships and bursaries.

Teachers are entitled to vacation leave during the school vacation periods. This totals 12 calendar weeks per year. In practice, however, most teachers do not enjoy this full length of vacation leave each year. Principals, or the MOE, may require them to report for work during the vacation periods. This could take the form of invigilation in national examinations, participation in professional development workshops in schools, or courses conducted externally during the school vacation. Besides this standard vacation leave, teachers are entitled to a maximum of 10 days leave for "urgent personal affairs." Education officers under the 1973 and 1979 Leave Schemes are eligible for 30 days of ordinary sick leave in a calendar year and an additional 30 days if they are hospitalized. If a teacher has used up the additional leave, he or she may be granted "special sick leave," equal to one-sixth of the total school holidays in a calendar year. Married female teachers in Singapore enjoy 56 days of full-pay maternity leave, but this provision will not apply for the third child (see Appendix 11-C for further details on the Leave Schemes).

Teachers are covered by a Medical Benefit Entitlement Scheme, which offers up to 80 percent coverage of ward charges incurred for medical treatment and hospitalization. Male teachers are entitled to medical benefits for their immediate family members, such as parents, spouse, and children below the age of 18. On retirement, pensioned officers continue to enjoy the medical benefit entitlements.

There are other types of benefits that apply to teachers, such as full-pay unrecorded leave (for attendance at overseas conferences, seminars, or international sports meets), no-pay leave (for study or childcare purposes, or on grounds of compassion). A teacher can also apply for no-pay or half-pay study leave in order to pursue a basic or postgraduate degree course after completing 5 years of service with the MOE. There is also a provision of half-pay leave for teachers who are on educational tours. Muslim teachers are eligible for pilgrimage leave if they have taught for 15 continuous years.

Teachers' salary scales, determined by the Civil Service, are computed on two grades: the Non-Graduate and Graduate scales. Salary scales for teachers are revised from time to time to ensure that they are attractive enough to retain teachers in the education service. In the last six years, there have been two revisions to narrow the gap in the salaries of teachers compared with those of employees in nongovernment sectors. Teachers who are recruited into the education service are placed on either the GEO I (for graduates with a basic or honors degree) or GEO II (for nongraduates) scale. Principals and vice-principals of primary and secondary schools and junior colleges, and heads of departments of junior colleges, are eligible for promotion to the SEO I (for GEO I officers) or SEO II scales (for GEO II officers) if they have completed ten years of service (the equivalent being six years for honors-degree graduate officers) and if they have a consistently good performance record. Principals who are on the SEO I or SEO II grades for at least two years can be considered for promotion to the higher SEO IA or SEO IIA grades, respectively.

The salary scale[4] of teachers as of January 1, 1994, is shown in Table 11.2.

All new appointees to the education service are a part of the Central Provident Fund scheme, which is a social security saving scheme set up by the government in 1955. Both the employer (the MOE) and the teacher employee contribute a percentage of the employee's salary total to the fund each month.

In Singapore, the teacher unions (e.g., the Singapore Teachers Union and the Singapore Chinese Middle School Teachers Union) and professional associations do not have any role to play in determining the salaries and professional conditions of teachers. As described above, these are worked out by the Civil Service.

Patterns of Supply and Demand for Teaching Positions

Over the last nine years, the percentage of new recruits into teaching at the primary school level has hovered between 2.54 percent and 4.51 percent, with more new

TABLE 11.2

Salary Scale of Teachers in Singapore, Jan. 1, 1994

Grade	Salary Scales
NONGRADUATE	
GEO* II	$850x70–920/1010x70–1360/1475x90–1835/ 2020x120–3100/3240x120–3840
GEO IIA	$1850x150–2600/2800x150–4000
SEO** II	$2800x150–4450
SEO IIA	$4100x210–4940:520:5450
GRADUATE	
GEO I	$1680x160–3920/4105x185–5030
GEO IA	$3190x190–5280
SEO I	$4145x230–4835/5065x285–5920
SEO IA	$5355x285–6210:6495:6785

*GEO: General Education Officer
**SEO: Senior Education Officer

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[4] All references to financial matters in this report are cited in Singapore dollars. At the time of this writing, US$1.00 equaled S$1.60.

teachers being employed from 1990 to 1993. The MOE's annual target was to hire at least 450 teachers to replace the older teachers who were due to retire from the teaching service, or those who had resigned. At the secondary and postsecondary levels, the actual number of new recruits has increased slightly from year to year, but the biggest annual recruiting target was in 1993, when 645 new graduate teachers were employed. However, the overall recruitment pattern must be seen in relation to the annual turnover rate of teachers in the education service (see Appendix 11-D for annual turnover and recruitment statistics). The total attrition rate and the corresponding number of teachers each year have been rising: from 2.24 percent in 1984 to 3.02 percent in 1990 and 4.51 percent in 1993. Two interrelated phenomena have been observed at the secondary school level: a continuing drive to recruit more and better qualified people to join teaching and an ongoing attempt to attract and retain teachers in the education service.

In terms of the patterns of surplus or shortage in teaching, it is useful to describe the primary and secondary levels separately. At the primary school level, there has been a surplus of Chinese, English, and Malay teachers in 1993. As for Tamil, there was a slight shortage in the same year. This situation of teacher surplus is a consequence of structural changes in the education system implemented in 1991. For example, there are now six years of primary schooling for all students (compared with the 1980s, when there were two extra years for students in the monolingual and extended streams). When the Preparatory Year project (prior to primary one) was scrapped in 1993, the primary school system had a surplus of teachers.

The secondary school system faces a reverse situation: There has always been a general shortage of teachers for English language, history, geography, mathematics, physics, chemistry, biology, home economics, art, music, physical education, and the Malay and Tamil languages. With the implementation of the revised secondary school system in 1994, there is now a pronounced shortage of teachers for most subjects. Approximately 15,000 students joined the secondary one school population beginning in 1994, and it has been particularly urgent for the MOE to recruit more new teachers over the next few years to replace those who are retiring or leaving the service for other employment.

Strategies to Recruit Teachers in Areas or Fields of Shortage

The MOE has embarked on a number of programs and worked out strategies to make teaching more attractive as a career for potential recruits. Some of the strategies are to address the shortage of teachers in the secondary schools. The Cadet and the Provisional Graduate Teacher schemes are two such schemes to alleviate the teacher shortage problem. The Cadet Graduate Teacher Scheme refers to the NIE students who are offered a teaching stint in schools prior to their admission to the NIE for their professional training program. The Provisional Graduate Teacher Scheme is targeted at untrained candidates who are offered a one-year temporary contract with the MOE. They are paid a basic monthly salary that is pegged according of their highest academic qualification (either a pass or an honors degree).

The MOE also recruits teachers from overseas for particular subjects in the secondary level. In 1993, it conducted efforts in the United Kingdom, Australia, and New Zealand to recruit English language and English literature teachers. The MOE has also begun to recruit mathematics teachers from India. These foreign-trained teachers will be selected based on criteria set by the MOE, such as their university qualifications in the subjects that they specialize in and their teaching experience.

A third and more visible strategy is that of promoting the teaching profession by means of annual advertising campaigns through television, press, and radio media, and through poster advertisments in public places and direct marketing packages. These advertising campaigns and media blitzes are appropriately timed to coincide with the NIE's annual recruitment efforts for graduate and nongraduate trainee teachers. The MOE also employs the expertise of an advertising agency to project the teaching profession to undergraduates and junior college school leavers. It participates in career seminars at the tertiary institutions for freshmen and final-year students, and at annual career exhibitions and recruitment fairs.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

The NIE is the sole teacher training institute in Singapore, and is responsible for all levels of teacher education. It was established and constituted as part of the Nanyang Technological University (NTU) on July 1, 1991.

The NIE is headed by a director and has four divisions: School of Arts, School of Education, School of Physical Education, and School of Science. Each school is headed by a dean. In addition, there is the Centre for Applied Research in Education (CARE), which coordinates and promotes education research.

The institute is governed by the NIE Council. The council is chaired by the President of the NTU, with the Director of Education as Deputy Chairman and the Director of the NIE as a member. The other members include university academics, some school principals, and some top administrators in the public and private sectors.

The institute offers a variety of programs leading to a range of qualifications, from diplomas to bachelor degrees to postgraduate degrees.

Preservice Programs

All preservice programs are conducted on a full-time basis at the institute. No student may pursue concurrently any course of study at another institution of learning while enrolled as a full-time student at the NIE.

The four-year bachelor's degree program aims to produce graduates with the skills to teach in both primary and secondary schools. The program leads to the award of the following degrees:

- Bachelor of Arts with Diploma in Education
- Bachelor of Science with Diploma in Education
- Bachelor of Arts with Diploma in Education (Physical Education)
- Bachelor of Science with Diploma in Education (Physical Education)

The Postgraduate Diploma in Education program seeks to train university graduates to become teachers. Teacher trainees who are in this program are allocated to specialize in one of the following: (1) primary school teaching; (2) secondary school teaching; or (3) the teaching of Physical Education (PE) in primary schools, secondary schools, and junior colleges. The PE specializations are taught in a two-year, full-time program. The rest are taught in a one-year, full-time program.

GCE "A" level holders and Polytechnic Diploma holders are eligible to apply for the two-year Diploma in Education and Diploma in Physical Education programs. For the former program, teacher trainees can apply to be trained as generalists for primary school teaching or as specialists in the teaching of art, music, or home economics at the secondary school level. Student teachers in the Diploma in Physical Education program can be trained to teach at either the primary or the secondary school levels.

Teacher education in Singapore is financed and funded by the government. The budget for teacher education (as a percentage of the total expenditure for education) from 1991 to 1993 is as follows (Ministry of Finance, 1993):

- 1991: 1.00 percent
- 1992: 1.45 percent
- 1993: 1.31 percent

The nature and content of the preservice teacher preparation curriculum is described further on in this chapter.

In-service Programs

The NIE also conducts formal professional programs for practicing teachers, Polytechnic lecturers, and University lecturers. These include the Diploma in Educational Administration (designed to prepare teachers to function as effective principals and vice-principals of schools); Further Professional Diploma in Education (which provides training for teachers to function as effective Heads of Departments in their schools); and the Postgraduate Diploma of Teaching in Higher Education (which is designed for the teaching staff of polytechnics and universities).

Postgraduate and Other Specialized Programs

In addition, the institute offers postgraduate programs that lead to the award of higher degrees in education, physical education, and arts and science. Other specialized programs include the training of teachers for schools that specialize in the teaching of mentally and physically handicapped children and of staff for institutes of higher learning. The NIE also trains preschool and kindergarten teachers under a special consultancy program.

Enrollment

Table 11.3, Table 11.4, and Table 11.5 show the number of applicants and enrollment in the various teacher training programs from 1991 to 1993.

Policy Guidance

For Singapore, which has no natural resources to boast of, the importance of investing in human resource development cannot be overemphasized. Education plays a pivotal role in the task of building Singapore and in making it a vibrant and competitive market in the world economy. Therefore, it receives high priority, and comes second (after defense) in the annual budget allocation.

The late 1970s and early 1980s saw the Singapore Education System entering a phase of development that aimed at identifying and rectifying deficiencies and problems inherent in the system. Educational policies were geared toward better meeting national goals and the varied individual needs of students within the system. Since the mid-1980s, the trend is toward decentralization in school management and upgrading the national work force in response to the national call for excellence, both in schools and in the Singapore society at large. Mr. Goh Chok Tong, Prime Minister of Singapore, pointed out unequivocably in his Green Paper to Parliament in 1988 (when he was then Deputy Prime Minister) that "excellence in education is our goal. The government aims to raise the standard of all schools in

TABLE 11.3
Number of Applicants and Enrollment for the Degree Programs From 1991 to 1993

	1991		1992		1993	
Program/Year	Joint Application*	Enrollment	Joint Application	Enrollment	Joint Application	Enrollment
Bachelor of Arts with Dip Ed	2637	74	2689	164	2529	150
Bachelor of Science with Dip Ed	24	23	28			
Bachelor of Arts with Dip PE	12	17	14			
Bachelor of Science with Dip PE	6	16	17			

*The term "joint application" in Tables 11.3, 11.4, and 11.5 indicates that the applicants for those programs filled in forms for all the programs. Based on the admission criteria and the needs of the economy, the selection board decided which program the applicants should be enrolled in.

TABLE 11.4.
Number of Applicants and Enrollment for the Postgraduate Diploma Programs From 1991 to 1993

	1991		1992		1993	
Program/Year	Joint Application*	Enrollment	Joint Application	Enrollment	Joint Application	Enrollment
Postgraduate Diploma in Education	1250	480	1223	437	2210	703
Postgraduate Diploma in Physical Education		16		17		31*

TABLE 11.5
Number of Applicants and Enrollment for the Diploma Programs From 1991 to 1993

	1991		1992		1993	
Program/Year	Joint Application*	Enrollment	Joint Application	Enrollment	Joint Application	Enrollment
Diploma in Education	1251	438	1014	304	1018	346
Diploma in Physical Education		41		47		36

Singapore ... to nurture inquiring minds, and to create a lively intellectual environment which will ultimately spread throughout Singapore society."

Toward this end, a committee was set up in 1989 to look into the upgrading of teacher education in Singapore. This committee was headed by Dr. Seet Ai Mee, the then Minister of State for Education. The report (the Seet Ai Mee Report, 1990) made several observations and recommendations.

It observed, for example, that many good teacher colleges overseas have come or are coming under the ambit of universities in order to enhance their standing and that of their degrees. Following this trend, the committee recommended that the NIE become part of the Nanyang Technological University (NTU) so as to clearly establish a tertiary status for itself and for its degree programs in arts and sciences. Thus, the former Institute of Education and the College of Physical Education were amalgamated to become the National Institute of Education, which in turn became part of the Nanyang Technological University on July 1, 1991.

In terms of teacher recruitment, the report noted that the recruitment of primary teachers will have to double in the 1990s—to about 650 per year. The "A" level candidature, which is the traditional pool for primary teachers, is projected to fall from 15,000 in 1990 to 11,000 from the mid- to late-1990s. Improved academic results and rising affluence will deplete the "A" level pool further, as more and more students pursue a degree locally or overseas. Many countries have established degree programs for primary teacher education in recognition of the importance and increasing complexity and demands of primary teaching in a fast-paced, technological society. These reasons are just as pertinent in Singapore and they argue for the upgrading of primary teacher education here. Considering both the recruitment and training viewpoints, the committee recommended the introduction of a degree program for the training of primary school teachers. This degree program was introduced in the NIE in 1991.

To further increase the pool of primary school teachers, a one-year Postgraduate Diploma in Education (Primary) program was launched in 1990. For the first time in the history of education in Singapore, graduates who prefer teaching at the primary level, and who are deemed suitable by the ESC, the MOE, and the NIE, can apply and be admitted to this program.

As stated earlier, the NIE is the only teacher training institute in Singapore. Thus, the courses it offers are different from those offered by Singapore's other university, the National University of Singapore. In addition to offering courses with a pedagogical slant, it also offers new programs, such as sports science and sports studies; fine arts, music, dance, and drama and performance. In-service teacher training, training of staff for special schools, for kindergarten, and for child-care centers are also planned, in tandem with the aims of the Ministry of Education and with the needs of industry.

"Sports for all" will continue to be one of Singapore's policies. Physical education programs and extracurricular activities in schools have been revised to give greater emphasis to the acquisition of sports skills and to a lifetime enjoyment of sports. All Singaporeans will have more opportunities and facilities to take part in physical activity to keep them fit and robust. Toward this end, programs are being planned to train fitness and physical instructors to cater to the needs of the leisure and fitness industries, of the armed forces, and of statutory boards. Discussions are currently being held between the School of Physical Education at the NIE and the Ministry of Defense, the Singapore Police Force, and the Singapore Sports Council to mutually strengthen training and research programs between these institutions and the School of Physical Education. The aim is to promote a healthy life-style and to make sports a way of life for all Singaporeans.

In the area of higher education, the NIE strives to develop a strong postgraduate degree program to enhance its standing as a tertiary institution. It is working toward initially achieving a level of 1 to 2 percent of its student population in possession of postgraduate degrees. Since the postgraduate degree program was reconceptualized in the mid 1980s, 124 students graduated with Masters in Education. The research carried out by these M.Ed. graduates, and by a smaller number of doctoral students, provides invaluable insights into improving teacher training.

Another way of enhancing its standing as a tertiary institution is for the NIE to place significant emphasis on developing strong research programs. There is much scope for studies on educational matters in Singapore and in the region that need to be validated locally, rather than being based on Western norms.

Accreditation/Approval

All NIE programs are overseen by external examiners. These examiners check on the quality and rigor of the various programs, assess the level of classroom teaching of trainee teachers, of examination papers, and of examination scripts, and moderate the general level of academic standards.

At present, the external examiners appointed to the various programs are:

- Diploma in Education: Prof. Maurice Galton, University of Leicester, UK
- B.A/B.Sc. with Dip. Ed./Dip. Ed. (PE): Prof. Richard Pring, (Education component) University of Oxford, UK
- PGDE (Primary & Secondary): Prof. Ivan Reid. Loughborough University, UK
- Diploma in PE; PGDE (PE): Prof. Graham Fishburne, University of Alberta, Canada
- B.A./B.Sc. with Dip. Ed. (PE): Prof. Neil Armstrong, University of Exeter, UK
- Masters in Education: Prof. John Keeves, Flinders University of South Australia, Australia

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

The National Institute of Education's mission is to upgrade the quality of teacher education in Singapore. As part of the Nanyang Technological University, the NIE strives for academic and pedagogical excellence.

The institute constantly reviews and improves the preservice teacher training programs to ensure that the graduates are well prepared for the education system of the 1990s and beyond. It aims to produce graduates who are imbued with the vision to improve the quality of teaching at all levels and to promote professionalism in the service.

The NIE is also responsible for the upgrading of the further professional development programs for schoolteachers, heads of departments, vice-principals, and principals. It equips the officers with advanced pedagogical and managerial skills that will meet the demands of future schools.

Academic Preparation Prior to Preservice Teacher Education

Candidates applying for all the preservice programs must possess at least a "grade 4" in English in their GCE "O" Level Examination or else are required to sit and pass the NIE's English Proficiency Test before they can be admitted into their respective programs. Admission requirements of specific degree and diploma programs are as follows:

1. For admission to the Bachelor of Arts/Science, with Diploma in Education/Physical Education (B.A./B.Sc. with Dip. Ed.; B.A./B.Sc. with Dip. Ed. [PE] programs), candidates must have favorable GCE "A" level results in the relevant subjects. Details of these requirements can be found in Appendix 11-E.
2. For admission to the Postgraduate Diploma in Education (PGDE) program, candidates for should have at least a degree from the Nanyang Technological University, the National University of Singapore, or other universities whose degrees are acceptable to the Education Service Commission of Singapore. For specialization in teaching general subjects at the primary school level, candidates must possess GCE "O" level passes in mathematics and in any science subject. For specialization in teaching specialized subjects at the secondary school level, candidates must possess acceptable results in those subjects at the university level. Additional details on requirements for admission to postgraduate diploma programs can be found in Appendix 11-F.
3. For admission to the Diploma in Education (Dip. Ed.) program, candidates must possess a GCE "A" level examination certificate, or its equivalent, with at least two advanced level passes and two ordinary level passes; and passes in at least five subjects obtained at the GCE "O" level examination. Additional details for specializations in different subjects as requirements for admission to Diploma of Education programs can be found in Appendix 11-G.
4. For admission to Diploma in Physical Education programs, candidates, in addition to the requirements for the Diploma in Education program, also need to demonstrate an interest and ability in Physical Education and Sports, as well as undergo a series of physical proficiency tests.

Nature and Content of Preservice Teacher Preparation Curricula

The preservice teacher preparation curriculum in the NIE aims to train and produce teachers who are well-informed, competent, and reflective professionals. Such teachers will have an understanding of the key concepts and principles of teaching and learning and should be able to implement, analyze, and theorize about key instructional processes. They will be able to competently discharge their teaching responsibilities in a variety of classroom and school contexts in a professional and committed manner. Those specializing in Physical Education will be provided with an in-depth understanding of the scientific, psychological, sociological, and philosophical principles, which form the basis of Physical Education.

Content Courses

The academic curriculum emphasizes fundamental concepts and principles as well as comprehensive coverage of the core knowledge of each subject. At the same time, it focuses on areas of study with major social, cultural, economic, or industrial relevance.

These kinds of courses, called "content courses," are offered only to teacher trainees in the B.A./B.Sc. and Dip. Ed. programs. Those who are in the Postgraduate Diploma in Education programs would already have graduated in their content courses in their respective universities before entering the NIE.

All students are required to take two academic subjects. The length of the various academic subjects ranges from 40 hours (in Year 1) to 250 hours (in Years 3 and 4).

The availability and options of the various courses vary from program to program. Apart from the more conservative courses, such as English language, English/Chinese literature, history, geography, mathematics, biology, and physics, students in the B.A. program can also opt to study drama and performance, art, or music.

A special feature of the curriculum for the B.A./B.Sc. program is its provision for multilateral development, which allows a student to combine disciplines across divisions or across schools to form innovative programs integrating music, art, and drama, for example, or music and physics, or geography and biology.

Pedagogical Courses

The "curriculum studies" subjects are those courses designed to equip teacher trainees with teaching skills for the Singapore classroom. Modules in each curriculum studies subject deal with the content, methods, and techniques of teaching the respective subjects in the Singapore classroom.

At the primary level, teacher trainees are required to take two compulsory pedagogical courses: (1) the teaching of English; and (2) the teaching of mathematics. In addition, teacher trainees are required to select a third methodology course from the following:

- The Teaching of Art
- The Teaching of Chinese
- The Teaching of Music
- The Teaching of Science
- The Teaching of Social Studies

At the secondary level, teacher trainees are equipped with the methodology of teaching the two "content" subjects they graduated in from their respective universities.

Education Studies

Under the general heading "Education Studies," teacher trainees take courses that acquaint them with the key concepts and principles in education that are necessary for effective instruction and reflective practice in schools. The courses deal with pupil development and the social context within which schooling operates, the application of psychology in teaching and learning, and instructional technology.

Practicum

The practicum of teaching practice is an important component of teacher education. Its principal function is to provide teacher trainees with the opportunity to develop teaching competencies in a variety of instructional contexts, and at different levels, under the guidance and supervision of cooperating teachers and of the NIE lecturers. In this way, schools are actively involved in teacher education in Singapore.

In the practicum, teacher trainees will be able to use knowledge and skills introduced in the content courses, the curriculum studies, and the education studies, and attempt an integration of theory and practice.

The duration of the practicum varies from program to program:

- B.A./B.Sc.—25 weeks (over 4 years)
- PGDE—9 weeks (over 1 year)
- Dip. Ed.—15 weeks (over 2 years)

Teaching Bursaries and Scholarships

Teacher trainees in all the preservice programs are awarded teaching bursaries. Those in the degree program (B.A./B.Sc. with Dip. Ed., B.A./B.Sc. with Dip. Ed. [PE]) are eligible for a bursary of S$3,200 per annum for the first two years of the course. If they are awarded the bursary, their tuition fees for this period will also be paid for by government. Those who have exceptionally good "A" level examination results are eligible for a scholarship (in place of the bursary). If awarded the scholarship, they will receive an allowance of S$3,200 per annum for the first three years of the course. In the fourth year, they will receive $2,400 (a prorated amount because the fourth year will be completed in nine months). The tuition fees for all four years of the course will be paid for by the government. Candidates initially awarded the bursary may be eligible for the scholarship in Years 3 and 4 if they perform exceptionally well in Years 1 and 2 of the degree program.

The bursaries awarded to the teacher trainees for all preservice programs are shown in Table 11.6

On completion of their preservice training, all teachers are bonded to serve the government of Singapore for three years. Those who are awarded scholarships in the degree programs are bonded for five years.

Differences in the Nature and Content of Teacher Preparation Programs

Because the NIE is the only teacher training institute in Singapore, the above is not applicable for the Singapore context.

Linkages Between Curricular Standards for Teacher Education and Curricular Standards for Students

There is a strong link between teacher education curricula and the national curricular standards for schools and students in Singapore. This is manifested in the selection of teacher trainees and in the range of subjects offered in the institute. For example, graduates applying for the Postgraduate Diploma in Education programs will be accepted into the programs only if they have graduated in content subjects that are currently taught in Singapore schools.

The content courses that are offered to teacher trainees in the Bachelor of Arts and Bachelor of Science or Diploma in Education programs are all subjects currently being taught in Singapore schools.

QUALIFICATION REQUIREMENTS

Initial Requirements

Teachers are required to obtain their training qualification (e.g., Diploma in Education, or Diploma in Physical Education, or Postgraduate Diploma in Education) in order to be granted the authority to teach in the Edu-

TABLE 11.6
Teaching Bursaries for All Preservice Programs

Program		Teaching Bursary Per Month
Bachelor of Arts with Diploma in Education		S$266*
Bachelor of Arts with Diploma in PE		*
Bachelor of Science with Diploma in Education		*
Bachelor of Science with Diploma in PE		*
Postgraduate Diploma in Education		
Honors Degree holders		S$1,300
Pass Degree holders		S$1,045
Postgraduate Diploma in Physical Education		
Honors Degree holders:	1st year	S$1,300
	2nd year	S$1,360
Pass Degree holders:	1st year	S$1,045
	2nd year	S$1,105
Diploma in Education		
GCE "A" level holders:	1st year	S$700
	2nd year	S$750
Polytechnic Diploma holders:	1st year	S$800
	2nd year	S$850
Diploma in Physical Education		
GCE "A" level holders:	1st year	S$700
	2nd year	S$750
Polytechnic Diploma holders:	1st year	S$800
	2nd year	S$850

*This figure is arrived at after deducting the tuition fees paid by the government for the teacher trainees. The tuition fees for those in the B.A. program are S$3,750 per annum, and those for the B.Sc. program are S$4,550 per annum. Teacher trainees in the other programs have to pay their own tuition fees, which are as follows: PGDE—S$1,080 per annum; PGDE (PE)—S$540 per annum; Dip Ed/Dip PE—S$540 per annum.

cation Service. On successful completion of their preservice training program at the NIE, beginning teachers are given Letters of Appointment as Education Officers by the MOE, and are posted to teach in schools where there are vacant positions. Foreign-trained teachers must have relevant teaching subjects and recognized teaching qualifications if they are to be admitted into the service. The MOE assesses the suitability of their foreign university qualifications. Singaporeans who resign from the teaching service and who reapply to teach again will not be required to obtain retraining unless they are crossing the primary/secondary school divider. Teachers who are redeployed from the primary to the secondary school level or vice versa would be required to attend appropriate in-service training. This would be determined by the Staff Recruitment Branch of the MOE.

Qualification Reauthorization

While there are no requirements for licensure in Singapore, all trained teachers with either a Diploma (for the nongraduates) or a Postgraduate Diploma (for the graduates) in Education are certified to teach. Teachers who do not possess these qualifications are regarded as untrained and temporary, and are referred to as "relief teachers."

Exceptions to the Rule

Please see the section above on strategies to recruit candidates in cases of shortage. Preservice teacher training is waived for those who are offered temporary employment as Cadet Graduate and Provisional Graduate Teachers by the MOE.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction or Transition Processes

There is no formal induction phase for beginning teachers when they enter the teaching service in Singapore. Apart from the two-year probationary period, beginning teachers are expected to assume a full teaching load and other duties in the schools where they have been posted by the MOE. The normal workload of a teacher is 33 periods of classroom teaching per week, in addition to some administrative and extracurricular activity duties. Singapore does not have the luxury of having teacher's aides in the classroom. Neither are parents involved in the academic or curriculum program. Some schools have a policy of inducting newly arrived teachers, but the transition phase tends to be short. The school principal may delegate this task of inducting new teachers to the head of department concerned or to the vice-principal. This will almost always entail some form of classroom observation of the new teacher's lessons. A teacher who is less experienced in classroom management and pedagogical skills could expect to get some feedback and advice from the more experienced head of department. Sometimes, the principal may assign a more experienced teacher to work closely with the teacher who is lacking in certain teaching skills and know-how.

In the practicum arrangements for preservice teachers who undergo training at the NIE, there is a deliberate attempt to invite schools to identify "cooperating teachers" to help in the professional development of new teachers. The NIE works closely with the MOE Schools Division to secure the assistance of principals in identifying experienced teachers to serve as mentors to the trainee teachers. Cooperating teachers are given guidelines on how to mentor the trainee teacher assigned to them during the period of teaching practice. These teachers receive no additional compensation, and take on this responsibility as one that is over and above their daily teaching duties. Together with the NIE practicum supervisor, cooperating teachers play an important role in the professional growth of beginning teachers. This model of on-the-job training initiated by the NIE is gaining acceptance by the MOE and by schools as a means of enhancing the supervisory skills of experienced teachers.

Professional Development Opportunities

The MOE and the NIE are jointly responsible for providing formal in-service training programs for practicing teachers in Singapore. The NIE has been involved in running two types of in-service courses: full-time in-service programs that lead to awards and qualifications, and shorter in-service courses or workshops that do not earn credits. Such in-service training opportunities are centrally directed by the MOE and are designed to meet two needs: the upgrading of knowledge and skills required for education officers who have been identified for positions of responsibility in schools (e.g., head of department and principal), and updating teachers on educational changes and curricular innovations. Schools provide on-site, in-service training, such as workshops for specific subjects or special school-based projects.

Since the mid-1980s, the MOE and the NIE have reconceptualized in-service teacher education using a framework that sees in-service training as being part of a continuum covering different stages of a teacher's career. The framework takes into account both the professional life-cycle of teachers and their career path in the education service. It builds on the existing infrastructure for in-service teacher education programs that are offered by the NIE, the MOE's Curriculum Planning Division, and the Curriculum Development Institute of Singapore (CDIS). Each year, the MOE's Training Branch sends out to schools a prospectus on all the available in-service education programs that would be run by the NIE, the Curriculum Planning Division, or the CDIS. For example, the 1994 Prospectus contains a listing of 148 courses, many of which aim to equip primary and secondary teachers with new pedagogical know-how or content knowledge required for the implementation of syllabus changes in different subjects. The CDIS conducts a large variety of workshops for subject teachers on a zonal basis. Such workshops are specifically related to the implementation of new curriculum materials or to computer technology introduced to schools.

In-service training is also offered to teachers for specialized areas, such as pastoral care and career guidance, and learning support for pupils with learning difficulties. For example, the in-service diploma in the pastoral care and career guidance program comprises eight modules, or units of course work, that are organized at two levels of training. The first level is for classroom teachers who wish to be equipped with the knowledge and skills to play the role of pastoral caregivers in their schools. Course work at the second level is designed for pastoral leaders in schools, and provides advanced training and in-depth treatment of selected topics in pastoral care and career guidance. These courses lead to an in-service diploma for teachers who have completed the set of eight modules.

Teachers are encouraged to attend in-service courses, particularly those that are perceived to enhance their pedagogical knowledge in areas such as problem solving, science process skills, the use of science laboratories and the management of computer classes. Course attendance is on a voluntary basis. These courses vary in duration: from 20 hours to over 300 hours. An example of a longer in-service course is the full-time 530-hour Diploma in Physical Education program.

Support for teachers' initiatives to attend professional development courses comes in several forms. As the application for and attendance at courses are centrally coordinated by the MOE, teachers can expect their attendance and completion of courses to be updated in the MOE's computerized records for teachers. A teacher's promotion and recommendation for career upgrading is related to his or her interest in seeking professional updating, among other performance indicators. There is no monetary incentive for in-service course attendance but school principals make adjustments in the teaching timetable to allow staff to attend courses conducted away from the school.

Career-Path Participation in Professional Development Opportunities

In the career path for Singapore teachers (see the Career Advancement Chart in Appendix 11-H), an education officer who has proven capability as a classroom teacher, and who shows leadership potential, is selected by the MOE for further professional development before he or she is finally appointed as a principal. The school hierarchy consists of a principal, a vice-principal, heads of department (HODs), and teachers. This hierarchy defines the career progression path of teachers in the school system and determines the number of available school leadership positions. Each primary school has up to five HODs, while each secondary school has up to eight HOD positions.

Teachers with at least three years of service and good job performance are nominated by their principals for appointment, first as HODs. If selected by the MOE interview panel, they are required to attend the full-time Further Professional Diploma in Education (FPDE) program offered at the NIE. The FPDE program, which is job-focused for department headship, runs over one academic year. It leads to the award of a professional diploma. Teachers who are sponsored by the MOE for this career upgrading program are given study leave during the training period.

HODs would normally serve a minimum of three years to enable their performance in that position to be assessed by their principal and the MOE so they can be considered for vice-principal appointment. Similarly, outstanding education officers who are attached to the MOE headquarters and who have been promoted to the Senior Education Service are selected for appointment as vice-principals. They would normally serve at least two years in this position before they can be considered for appointment as principals. A selection panel consisting of senior MOE officials interviews and decides on the suitability of individual vice-principals to be promoted to principal. The Diploma in Educational Administration is a full-time in-service training program that is designed for the development of potential principals who are currently serving as vice-principals of schools. They are sponsored by the MOE and granted a year's study leave while undergoing training.

Training opportunities that are initiated by the MOE and conducted by the NIE are financed by the MOE in two ways. In the case of the full-time in-service programs for the training of heads of department and prospective principals, the MOE is the sponsoring institution and pays for each participant's fees. Part-time in service programs conducted by the NIE are financially supported by the MOE. This is done by converting the estimated training cost into the additional number of academic and nonacademic staff needed by the NIE to run the in-service programs.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Present Concerns for Change and Improvement

As described in the earlier section on supply and demand for teaching positions, one of the most important policy issues relates to the recruitment and retention of a sizable number of new teachers for the school system in Singapore in the 1990s. There is a recognition of the need to make teaching more attractive as a career choice for the younger generation of Singaporeans about to enter the work force. The problem is multifaceted in the case of teaching in Singapore. Over the past decade, the economy has enjoyed high annual growth rates. Today, there is a more diversified economy, with enlarged growth sectors in manufacturing, services, finance and banking, and trade. The teaching service has not been able to attract and retain most of the younger and better qualified teachers because employment opportunities in the nongovernment sectors offer better remunerations and conditions of work.

Second, and related to the earlier point, the teaching profession has not enjoyed a positive image since the 1970s. Teaching is perceived as a job option better suited to women than to men because of the longer holidays and the imagined half-day nature of a teacher's work; perceptions are less often concentrated on the professional ideals of contributing to the education of the younger generation of Singaporeans. This more frequent perception has inevitably led to an acute shortage of male teachers. The gender imbalance in teaching has yet to be corrected. It is toward this end that the MOE has sought to promote the image of teaching as a profession for both male and female university graduates by emphasizing the intrinsic rewards and challenges of becoming a good teacher.

Among the younger, nongraduate teachers who are deployed in primary schools, there is a growing demand for university education. The salary disparity between graduate and nongraduate education officers working in the primary and secondary schools serves as a goal to obtaining a university degree. It has resulted in some younger, nongraduate teachers leaving the education service prematurely to pursue an overseas university course.

Both the phenomenon of the high attrition rate in the education service over the past decade (due to resignations or retirement of teachers in their fifties) and the difficulty of recruiting enough new teachers for pres- ent-day school needs have contributed to yet another problem. Teachers and school administrators have remarked often on the increased workload of teachers in Singapore schools today. Moreover, teachers are required to participate in school-based or external in-service courses in order to keep up with structural and curricular changes in the education system. The goal of providing for the professional development of teachers through continuing in-service training will be difficult to attain if the teacher shortage problem remains. The MOE has had to consider a desired balance between meeting systemic needs, on the one hand, and the individual professional development needs of teachers on the other.

The teacher-shortage problem has important consequences for the continued growth of Singapore in the global economy in the 21st century. In 1991, the Singapore government embarked on its Strategic Economic Plan to work toward the goal of Singapore's becoming a developed nation by the year 2030. This set in motion the corresponding policy decision to restructure the education system to provide at least ten years of general education for all children. It has become a priority for the MOE to address the problems stated above.

Present and Long-range Plans for Improvement

The MOE has responded in creative ways to try to meet the shortfall in the annual recruitment targets of teachers. Among these is the policy of redeploying selected primary school teachers to the secondary school level. For such teachers, in-service training is a requirement in the subject content and pedagogical areas. The recent efforts to reconceptualize in-service teacher education (see above section under Qualification Reauthorization) is preparation for a policy move to address the professional development needs of teachers in the 1990s. The MOE has continued to emphasize the importance of professional upgrading and updating among teachers. It has designed new incentives to encourage teachers to take up formal in-service training and tertiary education. There are better promotion prospects and salaries for new entrants into the teaching service. In addition, the setting up of the Open University Degree Program in 1994 offers yet another avenue for nongraduate teachers to upgrade themselves.

Teacher education in the 1990s has undergone significant changes in other ways. The NIE today offers a broader range of specialization programs for preservice and in-service teacher training. Creative arts (such as drama and performance), art and music education, and physical education are the newer disciplines for prospective primary and secondary teachers. These are offered at the degree and diploma levels. A new specialization program offering a Diploma in art/music/home economics is also being planned for 1994. In the undergraduate programs offered for preservice teachers at the NIE, there is an initiative to train a "total teacher." This means an attempt to train a preservice teacher to be able to teach competently at both the primary and secondary school levels. The NIE has been working on other in-service programs to meet the aspirations of education officers intending to pursue postgraduate qualifications in areas of specializations, such as in educational management, applied educational psychology, and the traditional disciplines (e.g., English language, science, art, and music).

CONCLUSION

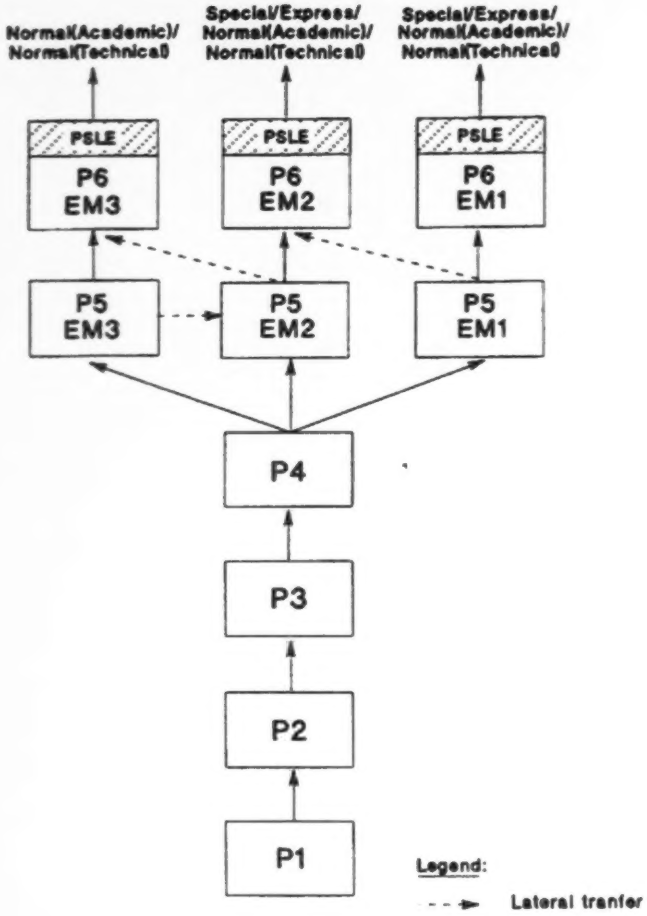
This report has encapsulated the following pertinent points of teacher education and professional development in Singapore:

- Shortage and retention of teachers
- Strategies to recruit teachers in areas of shortage
- Rigor and relevance of teacher training courses
- Continuing education/professional development.

Education plays a key role in making Singapore a vibrant and competitive market in the world economy. The various new programs and policies described in this report are geared toward meeting Singapore's goals and the varied individual needs of students in a fast-paced, technological society. Developments signal a time to review the basics and reorient thinking to meet these changes. The teaching professionals in Singapore will find themselves spearheading and meeting these challenges in the 1990s and beyond.

Appendix 11-A

PROGRESSION PATHS FOR PRIMARY SCHOOL PUPILS


Normal(Academic)/
Normal(Technical)
Special/Express/
Normal(Academic)/
Normal(Technical)
Special/Express/
Normal(Academic)/
Normal(Technical)
PSLE
P6 EM3
PSLE
P6 EM2
PSLE
P6 EM1
P5 EM3
P5 EM2
P5 EM1
P4
P3
P2
P1
Legend:
Lateral tranfer

I Pupils in the EM 1 stream will sit the PSLE in four subjects—English, Chinese/Malay/Tamil, Maths, and Science. They may offer an optional Higher Chinese/Malay/Tamil paper.

II Pupils in the EM2 stream will sit the PSLE in four subjects—English, Chinese/Malay/Tamil, Maths, and Science.

III Pupils in the EM3 stream will sit the PSLE in three subjects—English, Basic Chinese/Malay/Tamil, and Maths.

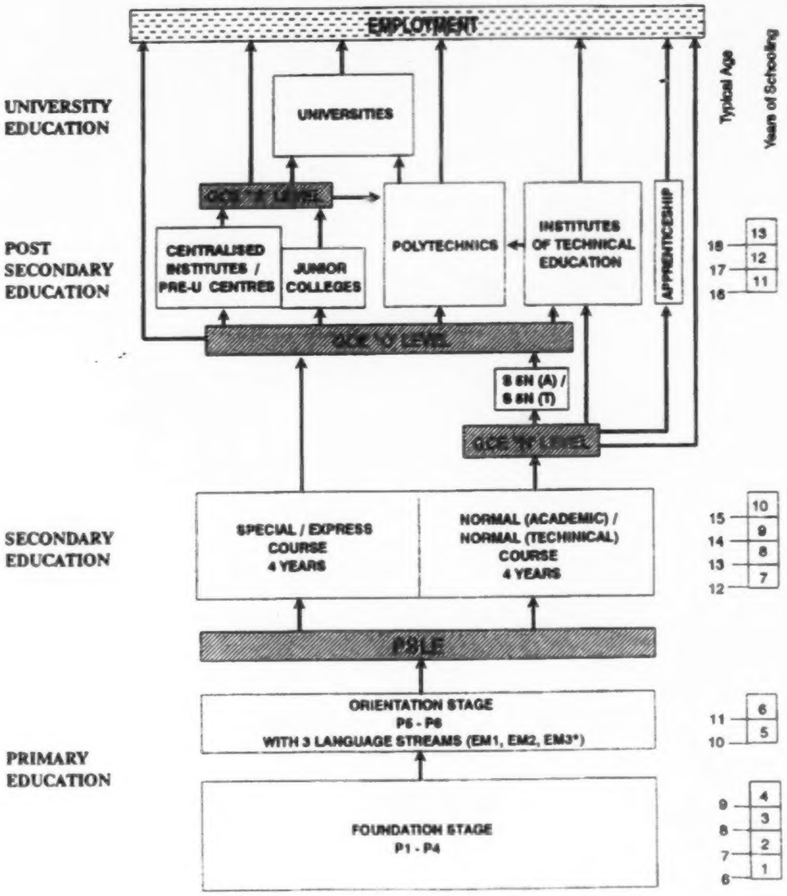
IV Within the EM2 stream are two sub-streams—EM2(E), EM2(C/M/T).

V Retention will not be generally practised, but in exceptional circumstances, a pupil may be allowed to repeat a year. In particular, P5 pupils in the EM3 stream who perform extremely well may repeat P5 in the EM2 stream the following year.

VI An alternative to the EM3 stream (the ME3 stream) is also available. Children identified for the EM3 stream may opt for the ME3 stream.

Appendix 11-B

EDUCATION SYSTEM


EMPLOYMENT
Typical Age
Years of Schooling
UNIVERSITY EDUCATION
UNIVERSITIES
GCE 'A' LEVEL
POST SECONDARY EDUCATION
CENTRALISED INSTITUTES / PRE-U CENTRES
JUNIOR COLLEGES
POLYTECHNICS
INSTITUTES OF TECHNICAL EDUCATION
APPRENTICESHIP
18
17
16
13
12
11
GCE 'O' LEVEL
S 5N (A) / S 5N (T)
GCE 'N' LEVEL
SECONDARY EDUCATION
SPECIAL / EXPRESS COURSE 4 YEARS
NORMAL (ACADEMIC) / NORMAL (TECHINICAL) COURSE 4 YEARS
15
14
13
12
10
9
8
7
PSLE
ORIENTATION STAGE P5 - P6 WITH 3 LANGUAGE STREAMS (EM1, EM2, EM3*)
11
10
6
5
PRIMARY EDUCATION
FOUNDATION STAGE P1 - P4
9
8
7
6
4
3
2
1

BEST COPY AVAILABLE

Appendix 11-C

The following excerpts from the Ministry of Education's *Principal's Handbook* (1993) provide further information on the government's Leave Schemes.

Forfeit of Vacation Leave

(205) Vacation leave due to an officer will be forfeited if:

(a) He gives less than the minimum notice to resign;
(b) He has not given the minimum notice but has paid: (i) money instead of notice; or (ii) an amount which is equal to the total wage for the period short of notice; or (iii) his normal period of notice has been waived.

Resignation

(F206) An officer who is indebted/obligated to the Government at the time of resignation, is required to settle all liabilities (outstanding loan, or liquidated damages in respect of the unserved bond) before he leaves the service.

F207 The notice of resignation is to be submitted to the Establishment, Recruitment & Placement Branch of this Ministry together with the Appendix A (see FF3) without any delay. In addition, a leave statement (Appendix B—see FF4) which is only applicable to officers eligible for vacation leave, is to be attached.

For details refer to: Paragraphs H65, H66, P10 and P16 of IM No. 2

(Paragraphs F208 to F210 not used.)

Leave (Government and Government-Aided Staff)

(F211) All officers, whether they are non-teaching staff (NTS), Principals, Vice-Principals, teachers or expatriates on contract are eligible for leave benefits.

(F212) The NTS, Principals and Vice-Principals enjoy vacation leave. The teaching staff, consisting of expatriates on contract and teachers appointed on the permanent establishment, are eligible for school holidays.

(F213) NTS who are appointed on a *temporary* basis are not eligible for vacation leave during the first 6 months of their temporary service. Principals should not approve their application for vacation leave during this period.

(F214) The leave eligibility of expatriates are specified clearly in their contract.

(F215) The types of leave all officers are eligible for are as follows:

(a) Medical leave
(b) Maternity leave
(c) Full-pay unrecorded leave
(d) UPA leave, i.e., leave on urgent private affairs (for teachers only)
(e) No-pay leave
(f) Study leave (for teachers only)
(g) Half-pay leave (for teachers only)
(h) Pilgrimage leave (for Muslim officers only)

(Paragraphs F216 to F220 not used.)

Vacation Leave For Principals and Vice-Principals

(F221) In accordance with the revised Education Scheme of Service Agreement dated 30 June 1979, Principals and Vice-Principals will be eligible for vacation leave as follows:

(a) Under 10 years' service—33 days per calendar year
(b) Ten years' service or more—39 days per calendar year

(F222) Leave eligibility for the year is calculated at the commencement of each calendar year, or on the date of assumption of duty as Principal or Vice-Principal. Where, during the course of a calendar year, an officer:

(a) Assumes duty as Principal or Vice-Principal
(b) Relinquishes duty as Principal or Vice-Principal
(c) Retires from the service
(d) Is absent for any period on half-pay, no-pay or pilgrimage leave or is absent for more than 3 months on scholarship, fellowship or training courses, the period for which is not deemed to be service qualifying for vacation leave, or
(e) Completes 10 years' service to qualify for the higher rate of vacation leave

his vacation leave eligibility for that year will be calculated on a pro-rated basis, rounded up to a whole day. Examples of how leave eligibility is calculated can be found in Ministry of Education Notification PA/23/79, dated 3 Aug 79.

(F223) Principals and Vice-Principals must apply for leave on Form G68. The application of the Vice-Principal must be submitted to the Principal who will decide on the leave. The application of the Principal (in duplicate) must be submitted to the respective Inspector of Schools, Schools Division of the Ministry, for a decision. A copy of the form will be retained in the Ministry and the other copy returned to the Principal for record.

(F224) Principals and Vice-Principals will normally be required to expend their vacation leave during school holidays.

(a) Where needed, Principals and Vice-Principals may be allowed to utilize up to 12 days of their vacation leave eligibility during term time subject to the exigencies of service without having to cite urgency as a reason if the leave does not exceed 2 days per occasion.

(b) However, any application for leave which exceeds 2 days per occasion during term time or is to be spent outside the Republic (other than within the Johore Bahru town limit) will be approved only on urgent grounds.

(c) Where there are valid reasons, Principals and Vice-Principals may also be allowed to apply for more than 12 days of their vacation leave eligibility during term time or overlap their vacation leave during the school holidays. Such applications will be considered on a case-by-case basis.

(F225) Principals and Vice-Principals may be allowed to take half-day leave to attend to urgent personal matters for a continuous period of 4 hours *subject to exigencies* of the service. The granting of half-day leave will be governed by the following rules:

(a) Such leave will be debited against an officer's vacation leave eligibility on the basis of two periods of half-day leave, equal to one day's vacation leave.

(b) An officer taking half-day leave must work at least 3 hours for that day (exclusive of lunch break).

(c) Half-day leave cannot be taken on Saturdays or eves of Public Holidays, which are half working days.

(d) The total half-day and full-day leave accumulated during term time should comply with para. F224 above.

(F226) Principals and Vice-Principals are required to expend their vacation leave within the calendar year and may be allowed to carry forward only 3 days of their unexpended vacation leave to the following year. However, Muslim Principals and Vice-Principals may be allowed to accumulate up to 2 years' vacation leave for the purpose of pilgrimage to Mecca.

(F227) When Principal proceeds on leave, the Vice-Principal will perform the duties of the Principal, in addition to his own. When the Vice-Principal proceeds on leave, the Principal will perform the Vice-Principal's duties in addition to his own. The Principal and Vice-Principal should not proceed on leave at the same time. In exceptional circumstances where both the Principal and Vice-Principal have to be away on leave together, their leave applications should be submitted to the Schools Division for a decision.

For details refer to: (a) Appendix H8 of IM No. 2; (b) MOE Notification PA/7/92.

(Paragraphs F228 to F230 not used.)

Medical Leave

(F231) All officers who are under the 1973 and 1979 Leave Schemes and education officers who are under the 1973 and 1979 Education Leave Schemes are eligible for 30 days' ordinary sick leave in a calendar year and an additional 30 days if they are hospitalized in a Government or private hospital.

(F232) Officers under the 1951 Leave Scheme are eligible for 90 days sick leave in a year, which includes hospitalization and maternity leave.

(F233) To qualify for full-pay medical leave, an officer must obtain a medical certificate either from a government or a private doctor. The MC obtained must show clearly the period during which the officer is unfit for duty.

(F234) In the event that an officer has taken all his full-pay sick leave eligibility and is still medically certified unfit for duty, he will be given extended sick leave, according to the officer's Leave Scheme. The number of days of extended sick leave an officer is eligible for will depend on the number of years of service he has put in.

(F235) If a teacher has used up the extended sick leave, he may be granted *special sick leave* on full-pay equal to one sixth of the total school holidays in a calendar year.

(F236) If the officer has used up his full-pay sick leave (viz ordinary sick leave, extended sick leave and special sick leave) and is recommended further sick leave by a Government Medical Board, he may be granted ***further extended sick leave*** on full-pay. Such extended sick leave shall be limited to one-twenty-fourth of each month of completed past service (e.g., an officer who has completed two years of service will be eligible for one month of further extended sick leave).

(F237) Principals must report to the Ministry those officers who have taken sick leave in excess of their annual sick leave eligibility.

For details refer to: (a) Para. H190–200 of IM No. 2; (b) Appendix H6 of IM No. 2; (c) Finance (PSD) Circular No. 4/88; (d) MOE Notification PA/2/90; (e) Finance (PSD) Circular No. 18/90. (Paragraphs F238 to F240 not used.)

Maternity Leave

(F241) A married female officer is eligible for 56 days' full-pay maternity leave, 28 days (4 weeks) immediately before and 28 days (4 weeks) immediately after the date of delivery if she is certified unfit and provided she has not more than 2 living children (excluding legally adopted ones and step children) at the time she applies for the leave. However, if she uses less than 4 weeks' leave before she gives birth, the remainder can be added to her 4 weeks' leave after her confinement.

(F242) A married female officer who had a twin pregnancy in her first childbirth would still be eligible for full-pay maternity leave for her second childbirth.

(F243) A married female officer on temporary appointment will be eligible for maternity leave after completion of six months continuous service. Otherwise the maternity leave will be treated as no-pay leave.

(F244) A married female officer giving birth to her third child will not be eligible for full-pay maternity leave. Medical leave granted to her for the period 28 days immediately before and 28 days immediately after delivery will be treated as no-pay maternity leave. However, if the officer undergoes ligation she will be granted 7 days ordinary sick leave, subject to eligibility, from the date of ligation, and the balance will be treated as no-pay leave.

(F245) A married female officer who takes maternity leave is required to fill up Form P10 (see FF5) and the Principal has to forward this form to POE5, together with all medical certificates issued to her during the year.

For details refer to: (a) Appendix H2 to H4 of IM No. 2; (b) Finance (PSD) Circular No. 19/86 (Paragraphs F246 to F250 not used.)

Full-Pay Unrecorded Leave

(F251) Subject to the exigencies of the service, an officer may be granted full-pay unrecorded leave for any of the following reasons:

(a) To represent Singapore in international games (i.e., Olympic Games, Asian Games, etc.).

(b) To represent Singapore in regional games (i.e., SEA Games, etc.) in any of the sporting activities listed in Annex F2.

(c) To represent Singapore in friendly games between nations and where such games have the support of the Singapore National Olympics Council (SNOC) or the Singapore Sports Council (SSC), listed in Annex F2.

(d) If he is nominated by a recognized organisation listed in Annex F3 to attend volunteer camps, field operations and other exercises conducted by the organisation.

(e) To attend approved conferences, seminars or trade union courses.

(F252) Full-pay unrecorded leave may also be granted to a female officer to look after her sick child if the child is below 6 years of age. Such leave is limited to 5 days per child and subject to a maximum of 15 days per year. A certified true copy of the child's birth certificate and MCs issued must be submitted when such an application is made. Application for such leave should be made on FF6. For details refer to: (a) Para H115-135 of IM No. 2; (b) Ministry's Notification No. PA/4/87. (Paragraphs F253 to F260 not used.)

Urgent Private Affairs (UPA) Leave

(F261) Principals may grant full-pay leave to teachers on the ground of urgent private affairs up to a maximum of 10 working days in a year. Applications for leave on urgent private affairs should be made on the appropriate form, FF7. Guidelines on UPA leave are set out in MOE Notifications PA/6/83 dated 23 Mar. 1983, PA/4/89 dated 18 Jan. 1989 and PA/10/90 dated 28 Jul. 1990. Temporary officers, including re-employed teachers with less than six months' service, are not eligible for the leave.

(F262) Principals should only approve UPA leave within the guidelines set out in FF7. Any request beyond or outside the guidelines should be referred to the Ministry of Education for consideration.

(F263) For other reasons which are not covered under the categories for full-pay UPA leave, Principals are delegated the authority to grant up to five working days no-pay leave in a year in accordance with MOE's Notification PA/14/87 dated 6 Oct. 1987. Applications for no-pay leave for 1 to 5 days should be made on form S2-7A (see FF8). For details refer to: (a) PA/6/83 dated 23.3.83; (b) PA/4/89 dated 18.1.89; (c) PA/14/87 dated 6.10.87; (d) PA/10/90 dated 28.7.90. (Paragraphs F264 to F270 not used.)

No-Pay Leave

(F271) No-pay leave may be granted to officers on the following grounds:

(a) For study purposes—An officer may be granted no-pay leave for study purposes if the course he intends to pursue is relevant to the service and is an area of shortage. Applications will only be considered if the officer meets all the requirements governing study leave.

(b) For childcare—A married female officer is eligible to apply for no-pay leave for childcare for one year at a time up to a maximum of four years, subject to the exigencies of the service. Such leave should be taken within 4 years after the birth of her child.

(c) To accompany spouse—An officer may be granted no-pay leave to accompany his/her spouse overseas when the latter has been sent on a training course or duty by the Government or Statutory Board. An officer whose spouse is sent by a local-based private company for a training course or on overseas posting can also be considered for no-pay leave if: (i) the Principal is prepared to release the officer; and (ii) there is documentary evidence from the company to indicate the duration and nature of the training course/posting.

(d) On compassionate grounds—An officer may be granted no-pay leave on compassionate grounds, such as to look after seriously ill immediate family members, to attend son's/daughter's convocation overseas and for domestic reasons. Application for no-pay leave must be accompanied with relevant documentary evidence.

(e) For short duration of 1 to 5 days—With effect from 1 Jan. 1988, Principals are delegated the authority to approve no-pay leave for short duration of 1 to 5 working days if he deems the reason given by the officer as acceptable. Sundays or public holiday falling in-between the period of no-pay leave will be counted as no-pay leave. (Please refer to para. 263.) Any application exceeding 5 working days must be referred to the Ministry for consideration. If such an application has been rejected by the Ministry, Principals should not grant the officer leave unless he is very certain that the officer can return within the approved period.

(f) To Teach In Independent Schools—An officer may be granted no-pay leave to teach in an independent school if a replacement can be given to the donor school. Such applications will only be considered during the annual Oct./Nov. Posting Exercise.

(F272) An application for no-pay leave for childcare and to accompany spouse should be made at least 3 months before the proposed leave commences. However, applications for no-pay leave for childcare should, preferably, be made in response to the Ministry's Notification, issued twice a year in January and July.

(F273) All applications for no-pay leave must be sent through the Principals, who would indicate their comments on the applications before submission to the Ministry.

(F274) No-pay leave of one month or more, except for no-pay leave to accompany spouse overseas sent on duty by the Government or Statutory Board, will not count as service for granting salary increments. Period exceeding a month will affect an officer's incremental month as well as her school holidays, which will be pro-rated accordingly. For details refer to: (a) Para H180-184 of IM No. 2; (b) MOE Notification PA/4/87 and PA/14/87; (c) Finance (PSD) Circular No. 15/85.(Paragraphs F275 to F280 not used.)

No-Pay/Half-Pay Study Leave

(F281) An education officer may be granted study leave on half-pay or no-pay for the purpose of pursuing a basic or post-graduate degree course if he meets all the requirements governing study leave at the point of application. The guidelines or the grant of study leave are shown in Annex F4

(F282) The half-pay study leave is calculated based on one-half of the officer's length of service, i.e., if he has served 5 years, he will be eligible for 5 months half-pay leave. A bond of up to 8 years is imposed on the officer if he is given 2 months or more of half-pay leave.

Officers who meet the criteria for the grant of study leave may be interviewed by a Selection Committee.

(F283) The Ministry will issue two circulars each year in February and August inviting officers to submit their applications for study leave. Only applications received in response to the circular will be processed. Ad hoc applications for study leave will not be accepted. Officers who wish to pursue a degree course overseas are strongly advised not to seek admission into a foreign university until they have been successful in obtaining study leave. This is to reduce the possibility of incurring unnecessary expenditure, time and effort if their study leave is not approved. For details refer to: (a) Paras H170 and 180 of IM No. 2; (b) MOE Notification No. GA/25/93. (Paragraphs F284 to F290 not used.)

Half-Pay Leave

(F291) Apart from half-pay study leave, an officer is also eligible for half-pay leave for educational tours.

(F292) Such educational tours will only be considered if:

(a) The tour has been assessed to be relevant to the service.

(b) The duration is less than 1 term, i.e,m 3 months.
(c) The officer is attached to an institution for 2 months out of the 3 months.
(d) He can provide a detailed itinerary of his attachment.
(e) The Principal is prepared to release the officer. For details refer to: Para 13 of Appendix H5 of IM No. 2 (Paragraphs F293 to F300 not used.)

Pilgrimage Leave

(F301) A Muslim teacher is eligible for the grant of pilgrimage leave once only in his service provided he:

(a) Is a Singapore Citizen or a Permanent Resident of Singapore;
(b) Has completed 15 years continuous service;
(c) Has not taken half-pay leave other than on medical grounds during the 15 years' continuous service; and
(d) Has registered with the Majlis Ugama Islam Singapura (MUIS) or any other competent authority appointed by the MUIS.

(F302) Other Muslim officers, including Principals and Vice-Principals, are eligible for pilgrimage leave if, in addition to the above conditions, they have saved 2 calendar years' vacation leave.

(F303) Applications must be made in writing through the Principals to the Ministry together with:

(a) A photostat copy of the registration letter from MUIS;
(b) A statement from MUIS showing the exact dates of departure and return to Singapore.

(F304) An officer who arrives late because of a delay in flight schedule, may be granted an additional day of pilgrimage leave. However, if he is found to be deliberate in not reporting for work, the pilgrimage leave will be converted to no-pay leave with a possibility of a letter of advice or warning issued to him. For details refer to: (a) Paras 4 and 5 of Appendix H5 of IM No. 2; (b) MOE Notification PA/12/89. (Paragraph F305 to F310 not used.)

Permission to Leave the Republic

(F31) Principals have been delegated the authority to allow teachers to leave the Republic during weekends, school holidays and public holidays. However, Principals must ensure that the applicant:

(a) Is not required for duty during the school holidays;
(b) Is not facing any disciplinary action, or under notice of termination or resignation; and
(c) Inform the school of his forwarding address.

(F312) Principals' applications for permission to leave the Republic must be submitted to the Ministry of Education for approval.

Absence Without Leave

(F313) An officer who is absent from duty without leave or reasonable cause for a continuous period of more than 7 days (including Sundays and Public Holidays) may be held to have vacated his office.

(F314) On his second day of absence without leave, the Principal must write to the officer to request him to report back for duty immediately and to explain his absence. A copy of the letter to the officer is to be extended to the Establishment, Recruitment & Placement Branch of this Ministry.

(F315) If the Officer fails to report for duty after 7 continuous days, the Principal should notify the Ministry, who will take follow-up action to vacate him from office.

(F316) Should the officer, on receipt of the warning letter, resume duty, the Principal must obtain from him a written explanation and forward it with his (Principal) comments to the Ministry. For details refer to: Paras P50-54 of Section P of IM No. 2. (Paragraphs F317 to F320 not used.)

Appendix 11-D

TABLE D-1

Annual Turnover Rate of Teachers in the Education Service (1984–1993)

Year	Total Attrition	Teacher Stock	Attrition Rate
1984	460	20519	2.24%
1985	547	20591	2.66%
1986	562	20627	2.72%
1987	605	20768	2.91%
1988	618	21020	2.94%
1989	635	21002	3.02%
1990	745	20997	3.55%
1991	882	20938	4.21%
1992	846	20938	4.04%
1993	956	21177	4.51%

TABLE D-2

Annual Recruitment of Teachers (1985–1993)

	Primary Level			SEC/JC/CI Level		
Year	New Recruits	Teacher Stock	% of New Recruits	New Recruits	Teacher Stock	% of New Recruits
1985	273	10746	2.54	451	9845	4.58
1986	424	10600	4.00	357	10027	3.56
1987	288	10560	2.73	384	10208	3.76
1988	238	10662	2.23	304	10358	2.93
1989	349	10640	3.28	436	10362	4.21
1990	552	10553	5.23	286	10444	2.74
1991	723	10611	6.81	290	10327	2.81
1992	454	10780	4.21	379	10158	3.73
1993	492	10911	4.51	645	10266	6.28

Note: 1994 data are not available.

Appendix 11-E

The following provides details on admission to the Bachelor of Arts/Sciences program, with a Diploma in Education/Physical Education (B.A./B.Sc. with Dip. Ed.; B.A./B.Sc. with Dip. Ed. [PE]).

Bachelor of Arts/Bachelor of Science

Candidates offering the Singapore-Cambridge GCE Advanced Level Examination or Higher School Certificate Examination must have obtained:

(a) passes in at least 2 subjects at "A" level and two subjects at "AO" level, including a pass in General Paper (English) taken at one and the same examination;
(b) a minimum grade of C in at least five subjects, including English as a first language, taken at the GCE "O" Level Examination;
(c) a minimum grade of D7 in a second language (ML2/CL2/TL2) taken at the GCE "A" Level Examination, or a minimum grade of D7 in a first language (ML1/CL1/TL1) taken at the GCE "O" Level Examination; and
(d) a pass in Mathematics, either at the GCE "O" Level Examination, or at least at "AO" level in the GCE "A" Level Examination.

For admission to the course leading to the degree of Bachelor of Science with Diploma in Education, candidates should include, among their advanced level subjects, at least a pass in two of the following:

(a) Mathematics (Syllabus C) or Further Mathematics
(b) Biology
(c) Chemistry
(d) Physics
(e) Physical Science

Candidates offering commercial subjects in the Singapore-Cambridge GCE Advanced Level Examination or equivalent examination must meet the requirements stipulated in paragraph B1 above. However,

(a) office administration and principles and practice of office administration are not subjects acceptable for admission to the university; and
(b) office administration and stenography, shorthand and typing, and office administration and shorthand/typwriting duties are counted as subjects at ordinary level irrespective of the level in which the candidate has passed the examination.

Appendix 11-F

The following provides additional details on requirements for admission to postgraduate diploma programs.

To be considered for admission, candidates should have at least a degree from the Nanyang Technological University, the National University of Singapore, or other universities whose degrees are acceptable to the Education Service Commission of Singapore.

For specialization in teaching Design and Technology at secondary school level, the degree must be in Mechanical Engineering, Chemical Engineering, Electrical Engineering, or Civil Engineering.

For specialization in teaching general subjects at the primary school level, applicants must possess GCE "O" level passes in mathematics and any science subject.

For specialization in teaching physical education, applicants will need to demonstrate an interest and ability in Physical Education and Sports, as well as undergo a series of physical proficiency tests.

For specialization in teaching music at the secondary school level, applicants who are shortlisted will be required to give a five-minute audition prior to the interview. The audition will include at least one of the following: prepared pieces on first and/or second instruments; sight read on first instrument; sight sing; harmonize simple melody on piano; or improvise a simple piece.

Appendix 11-G

The following provides additional details for specializations in different subjects as requirements for admission to Diploma of Education programs.

To be considered for admission, candidates must possess:

(a) a Singapore-Cambridge GCE Advanced Level Examination Certificate or its equivalent, with at least two advanced level passes and two ordinary level passes, including a pass in General Paper (English) obtained at one and the same examination; and

(b) passes in at least five subjects obtained at the Singapore-Cambridge GCE Ordinary Level Examination.

In addition to the requirements stipulated above, the following requirements must also be met for the specializations indicated:

(a) For *Specialization in teaching at primary school level*, applicants must also possess a pass in Mathematics at least at the GCE Ordinary Level Examination.

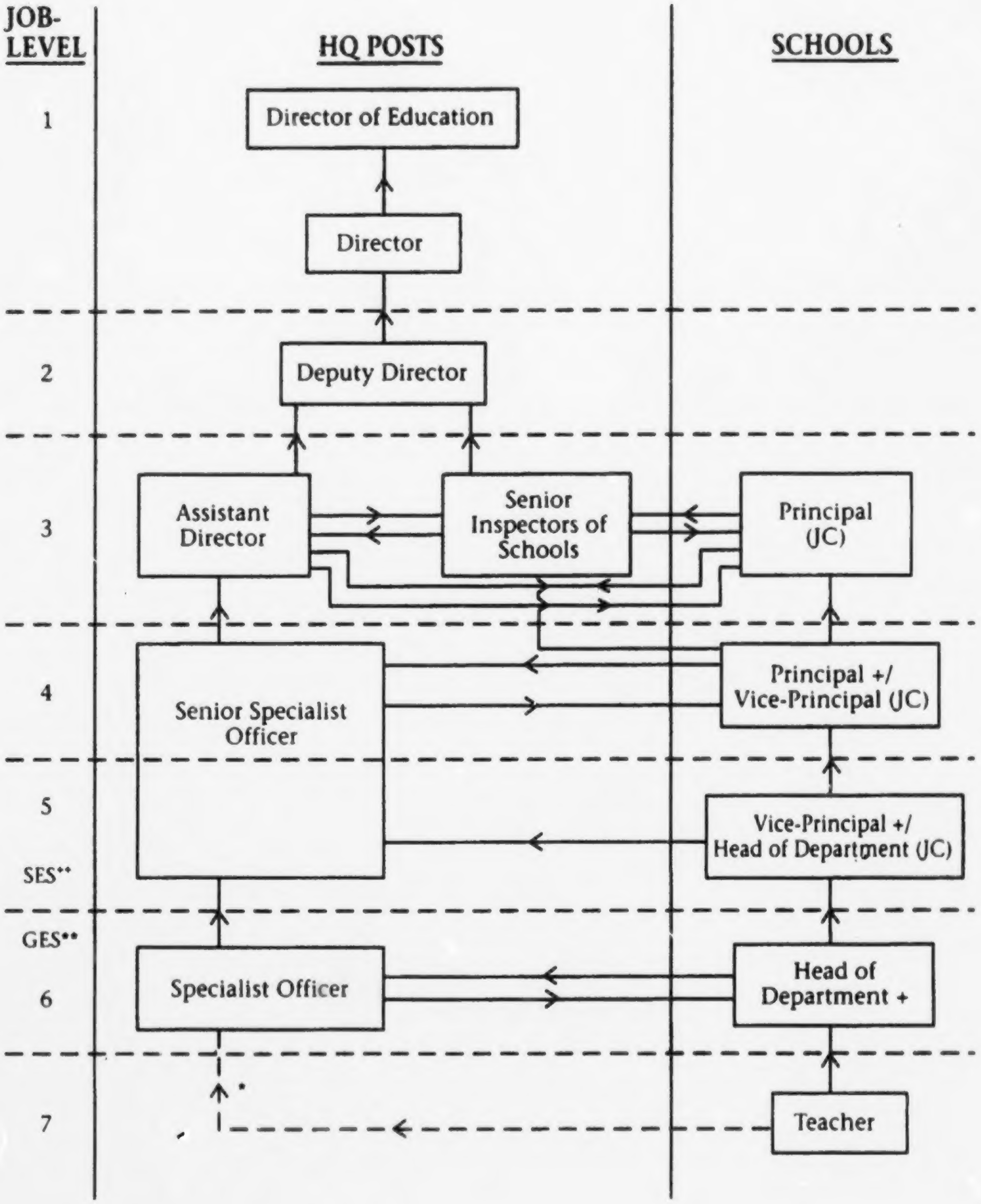
(b) For *Specialization in teaching Chinese/Malay/Tamil*, applicants must satisfy the requirements at B1 (a) above, except that the pass in General Paper (English) need not be obtained from the same sitting of the GCE Advanced Level Examination. In addition, applicants must possess: a pass at least at Grade B3 in Chinese Language (CL1)/Malay Language (ML1)/Tamil Language (TL1) at the GCE Ordinary Level Examination; or a pass in Chinese/Malay/Tamil *or* Chinese/Malay/Tamil as a Second Language at advanced level *or* a pass at least at Grade A2 in Chinese/Malay/Tamil as a Second Language at "AO" Level, which need not be obtained at the same sitting of the GCE Advanced Level Examination for requirements B1 (a).

(c) For *Specialization in teaching Music*, applicants must also possess a pass in Mathematics at least at the GCE Ordinary Level Examination, as well as at least ABRSM Grade 7 (Practical) and Grade 6 (Theory). Applicants who are shortlisted for this specialization will be required to give a 5-minute audition prior to the interview. The audition will include at least one of the following: viz perform. prepared pieces on first and/or second instruments; sight read on first instrument; sight sing; harmonize simple melody on piano; or improvise a simple piece.

(d) For *Specialization in teaching Art*, applicants must also possess a pass in Mathematics, at least at the GCE Ordinary Level Examination, as well as a pass at least at Grade C in Art at the GCE Advanced Level Examination. Applicants who are shortlisted for this specialization will be required to bring for assessment, prior to the interview, a portfolio of their selected works which has been authenticated by their school/college as being their own unaided work.

(e) For *Specialization in teaching Home Economics*, applicants must also possess a pass in Mathematics and *either* Food and Nutrition *or* Fashion and Fabrics, at least at the GCE Ordinary Level Examination.

Appendix 11-H


JOB-LEVEL
HQ POSTS
SCHOOLS
1
Director of Education
Director
2
Deputy Director
3
Assistant Director
Senior Inspectors of Schools
Principal (JC)
4
Senior Specialist Officer
Principal +/ Vice-Principal (JC)
5
Vice-Principal +/ Head of Department (JC)
SES++
GES**
6
Specialist Officer
Head of Department +
7
Teacher
*

Key

- + Excluding Junior Colleges (JC).
- * This path should be the exception rather than the rule.
- ++ Senior Education Service.
- ** General Education Service.

Source: Ministry of Education, Singapore.

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LIST OF ACRONYMS USED IN THIS REPORT

B.A.	Bachelor of Arts
B.Sc.	Bachelor of Science
CARE	Centre for Applied Research in Education
CDIS	Curriculum Development Institute of Singapore
ESC	Education Service Commission
FPDE	Further Professional Diploma in Education
HOD	Head of Department
MOE	Ministry of Education
NIE	National Institute of Education
NTU	Nanyang Technological University
PE	Physical Education
PGDE	Postgraduate Diploma in Education
PSLE	Primary Six Leaving Examination

12

Teacher Training in Chinese Taipei

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CONTEXT

Definitions

For the purpose of easily understanding the educational system in Chinese Taipei, the terms used in this paper are first defined in Table 12.1.

There is no age limit at post-secondary schools. The educational requirements for instructors at each level of education have been upgraded over the past few decades. Currently, graduates of teacher training institutions (with a bachelor's degree) are the main supply of pre-primary and secondarv school teachers, whereas doctoral degrees are gradually becoming a necessary requirement for instructors in postsecondary schools.

Educational Systems and Student Population

This section briefly introduces the educational system of Chinese Taipei: its schools, student population, and the educational administration.

A graphic illustration of the educational system is displayed in Figure 12.1. While pre-primary schooling is optional and must be paid for by parents, primary and junior high education is compulsory and free of charge. After nine years of compulsory education, students must pass provincial/municipal entrance examinations to enter either three-year college-preparatory senior high schools, three-year skills-oriented senior vocational schools, or five-year skills-oriented junior colleges. By the second year of senior high school, college-bound students are funneled into one of two programs: liberal arts or mathematics and sciences. Vocational schools cover business, agriculture, industry, home economics, marine products, nursing and midwifery, and opera and arts. Students learn skills that prepare them to enter the job market after graduation.

Graduates of senior secondary schools must pass nationwide entrance examinations to qualify to enter any of the postsecondary schools. This includes four-year undergraduate schools and two- or three-year junior colleges. While a bachelor's degree is awarded to four-year college graduates, an associate degree is conferred on junior college graduates. In general, students prefer four-year colleges and universities to junior colleges. Postgraduate programs are offered in most four-year colleges and universities.

The four-year college or university to which a student is admitted is determined by: (1) his or her test scores; (2) his or her choice of department and college or university; and (3) minimum test requirements for the particular department and college or university. Colleges and universities may place greater weight on the subjects they want to emphasize to select students with the highest potential.

Table 12.2 reports school distribution in Chinese Taipei. Of the 6,819 schools, 2,420 are pre-primary,

TABLE 12.1
Definitions of Terms

	Grade/Levels	Age Range	Type of Education Required to Teach
PRE-PRIMARY	Kindergarten	4–6	Teacher training at Teachers' Colleges
PRIMARY	1–6	6–12	Teacher training at Teachers' Colleges
SECONDARY	Junior High Senior High	1–3	12–15 1) Teacher training at Normal Universities
	College-preparatory	1–3	15–18 2) Four-year undergraduate education
	Vocational	1–3	15–18
POSTSECONDARY JUNIOR COLLEGE	5-year	1–5	15–20 Master's & Doctoral degrees
	3-year	1–3	18–21
	2-year	1–2	18–20
UNDERGRADUATE	1–4	18–22	
MASTER'S	2–	22–	
DOCTORAL	2–	24–	
PRESERVICE TEACHER EDUCATION	1–5	18–23	Master's & Doctoral Degrees

2,509 are primary, 709 are junior high, 397 are senior secondary, and 124 are postsecondary. Senior secondary schools include 186 college-preparatory high schools and 211 skills-oriented vocational schools. postsecondary institutions consist of 74 junior colleges and 50 four-year colleges and universities.

The proportion of public and private schools varies according to levels of education. Seventy percent of pre-primary schools are run by the private sector; 99 percent of compulsory education institutions are operated by the public sector, either city/county or municipal/provincial governments. For the college-bound student, there are more private high schools (10 additional ones) than there are public ones, and there are also 21 additional private skills-oriented vocational schools. Junior colleges are predominantly private; there are six more public four-year colleges than there are private ones. Even though some private schools are church-affiliated (Christian or Buddhist), the separation of church and education precludes the practice of religion in school. The law regulating schools mandates that private schools may not force students to take courses in religion or to participate in religious activities on school grounds. (Statistics on the percentage of church-run private schools in Chinese Taipei are not available.)

The geographic distribution of schools reflects population density. In the more populous urban areas in the north and south, there is also the highest concentration of schools of all educational levels. There is also a less numerous but significant cluster of schools near the provincial government in the central part of Chinese Taipei. The mountainous eastern region is home to less than 10 percent of schools at all educational levels.

Table 12.3 shows the distribution of the student population in Chinese Taipei. The number of students tends to decline at higher levels of education. Of 4,994,959 students, 231,124 are in pre-primary, 2,200,968 in primary, 1,179,028 in junior high, 730,597 in senior secondary, and 653,062 in postsecondary. There are 2.18 times as many students enrolled in vocational schools as there are in college-preparatory high schools. There are about 76,000 more students in junior colleges than there are at four-year colleges or universities.

The student population is nearly homogeneous; almost all are ethnic Chinese, and most of the remainder are aborigines concentrated in the eastern part of Chinese Taipei. According to available data, 1.19 percent of students enrolled in primary schools, and 0.63 percent in junior high schools, are aborigines.

Males are slightly more numerous (51–54 percent) at most levels of education. The exception is senior vocational schools, where males comprise only 46 percent of the student body. The percentage of males by educational level is as follows: about 52 percent of pre-primary children, 52 percent of primary children, 51 percent of junior high students, 53 percent of college-bound high school students, and 54 percent of postsecondary students.

A comparison of private versus public institutions by educational level shows that private kindergartens accommodate almost four times as many children as do public kindergartens, but 97 percent of all students attend public primary and junior high schools. Interestingly, though public college-preparatory schools account for less than half of all senior high schools, they serve 71 percent of the students. Slightly more than half of the vocational schools are private, and they accommodate 63 percent of students. At the postsecondary level, 83 percent of students study at private junior colleges, and 58 percent of students attend private four-year colleges or universities.

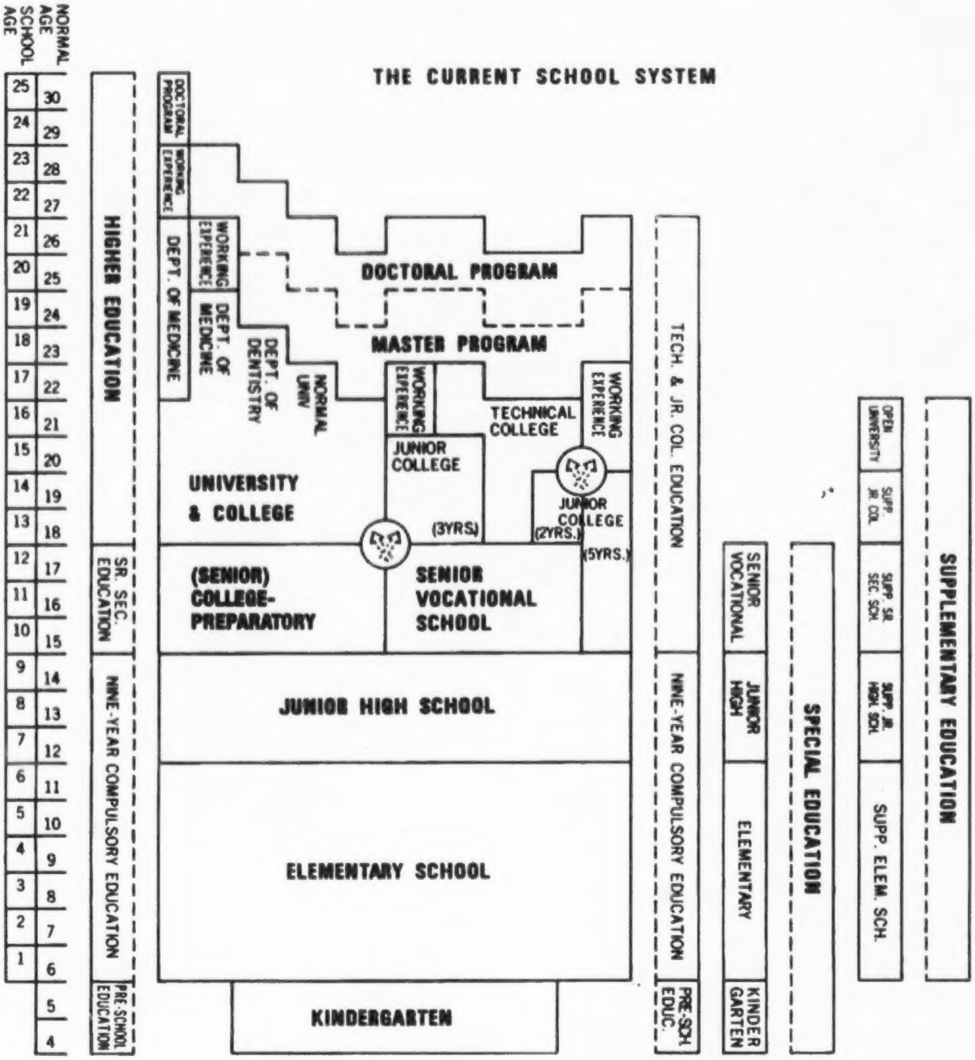
THE CURRENT SCHOOL SYSTEM
NORMAL AGE
SCHOOL AGE
HIGHER EDUCATION
SR. SEC. EDUCATION
NINE-YEAR COMPULSORY EDUCATION
PRE-SCHOOL EDUCATION
DOCTORAL PROGRAM
WORKING EXPERIENCE
DEPT. OF MEDICINE
DEPT. OF DENTISTRY
NORMAL UNIV
DOCTORAL PROGRAM
MASTER PROGRAM
TECHNICAL COLLEGE
JUNIOR COLLEGE
(3YRS)
(2YRS.)
(5YRS.)
UNIVERSITY & COLLEGE
(SENIOR) COLLEGE-PREPARATORY
SENIOR VOCATIONAL SCHOOL
JUNIOR HIGH SCHOOL
ELEMENTARY SCHOOL
KINDERGARTEN
TECH. & JR. COL. EDUCATION
PRE-SCH EDUC.
SENIOR VOCATIONAL
JUNIOR HIGH
ELEMENTARY
KINDER GARTEN
SPECIAL EDUCATION
OPEN UNIVERSITY
SUPP. JR. COL.
SUPP. SR. SEC. SCH.
SUPP. JR. HIGH SCH.
SUPP. ELEM. SCH.
SUPPLEMENTARY EDUCATION

FIGURE 12.1
Current school system (Source: *Education Statistics of the Republic of China*, 1993.)

TABLE 12.2
School Distribution at All Levels

	Pre-Primary	Primary	Junior High	College-Bound	Vocational	Junior College	College & University
TOTAL	2,420	2,509	709	186	211	74	50
PUBLIC VS. PRIVATE							
Public	716	2,487	700	88	95	14	28
Private	1,704	22	9	98	116	60	22
LOCATION (%)							
North	43.91	28.73	35.77	41.85	35.71	44.59	56
South	31.07	31.63	30.90	32.07	34.76	31.08	20
Central	21.56	31.35	27.18	21.74	24.76	20.27	20
East	3.46	8.29	6.15	4.35	4.76	4.05	4

Source: *Education Statistics of the Republic of China*, 1993, p.4; *Education Statistical Indicators in the Republic of China*, 1993, p.8.

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TABLE 12.3
Student Distribution at All Levels

	PRE	PR	JH	CP	VO	JC	UG	GR
TOTAL	231,124	2,200,968	1,179,028	229,876	500,721	348,803	273,088	31,271
ABORIGINES (%)	NA	1.19	0.63	NA	NA	NA	NA	NA
GENDER (%)								
Male	52.18	51.58	51.31	53.08	46.39	50.44	55.08	75.06
Female	47.82	48.42	48.69	46.92	53.61	49.56	44.92	24.94
PUBLIC VS. PRIVATE (%)								
Public	21.00	98.84	94.08	71.35	37.42	17.12	42.42	76.43
Private	79	0.16	5.92	28.65	62.58	82.88	57.58	23.57

Note: PRE = pre-primary; PR = primary; JH= junior high; CP = college preparatory; VO = vocational; JC = junior college; UG = undergraduate; GR = graduate school.

Source: *Education Statistics of the Republic of China*, 1993; *An Estimation of Supply and Demand for Primary and Junior High School Teachers in Aboriginal Regions*, Ministry of Education, 1992.

Because primary and junior high education is compulsory for all 6- to 15-year-old children, the completion rates at these two levels of education are almost 100 percent. In 1992, 88 percent of junior high school graduates pursued the next highest levels of education, such as college-prep high schools, skills-oriented vocational schools, or skills-oriented junior colleges. About 60 percent of high school graduates and 15 percent of vocational school graduates continue postsecondary schooling.[1] Students cherish the opportunity to learn, because they must pass competitive entrance examinations to receive postcompulsory education when they complete junior high school. However, some students quit the school they have been admitted to in order to study at an independent cram school, and prepare to retake the examination in hopes of admission to a better school.

The educational administrative authority is divided into three levels: the Ministry of Education (MOE) at the central government, the Department of Education (DOE) at the provincial/municipal level of government, and the Bureau of Education (BOE) at the county/city level of government. Although the MOE is the major determinant of school policies for all levels of education, it can also delegate administrative responsibility to the provincial/municipal governments, which in turn can distribute their power to city/county governments. Based on the control of revenue and budget, the power to establish or close schools, and the supervision of schools, the real power of postsecondary education lies in the MOE, that of senior secondary education in the DOE, and that of compulsory education in the BOE. Both the DOE and BOE can tailor the MOE's policies to fit the educational preferences and conditions of different areas. If the policies of the DOE and BOE conflict with those of the MOE, the administrative authorities involved negotiate a resolution of those conflicts.

BACKGROUND ON THE TEACHING FORCE

For a bird's-eye view of the teaching force in Chinese Taipei, this section describes the characteristics of the teaching profession, the characteristics of teaching employment, and the patterns of teacher supply and demand.

Basic Characteristics of the Teaching Profession

The distribution of teachers is presented by level of education, gender, public vs. private schools, age, length of service, educational background, qualification, and location in Table 12.4. In the 1992 school year, 85.7 percent of the 219,280 full-time teachers taught in the kindergarten through grade 12 (up to secondary senior high school), levels, or "K-12." Of these 187,850 K-12 schoolteachers, 7.8 percent were pre-primary; 44.7 percent were primary; and 47.5 percent were secondary. About 60 percent of secondary schoolteachers taught at junior high schools, while the remaining 40 percent taught at senior secondary schools. The percentages of senior secondary school teachers working at college-prep high schools and at skills-oriented vocational schools were about even (49 percent versus 51 percent, respectively).

At K-12 levels, school teachers are predominantly women (59.8 percent), but the numerical superiority of female teachers lessens as the level of education rises. Female teachers comprise about 98 percent of the pre-

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[1] Education Statistics of the Republic of China, 1993, p.29.

TABLE 12.4
Teacher Distributions at K-12 Levels

	Pre-Primary	Primary	Junior High	College-Bound	Vocational
TOTAL	14,727	84,052	53,212	17,527	18,332
GENDER (%)					
Male	2.27	39.51	41.41	52.85	57.78
Female	97.73	60.49	58.59	47.15	42.22
PUBLIC VS. PRIVATE (%)					
Public	19.64	99.02	99.38	53.80	59.72
Private	80.36	0.98	0.62	46.20	40.28
AGE DISTRIBUTION (%)					
Below 25	NA	10.60	6.10	4	4.90
25–45	NA	57.70	64.80	70	72.60
Above 45	NA	31.80	29.10	25.90	22.50
TEACHING EXPERIENCE (YEARS) (%)					
Below 10	NA	38.80	33.90	45	49.90
10–20	NA	23.20	34.30	30.90	32.50
20–30	NA	18.40	27.30	19.70	14.70
Above 30	NA	19.60	4.40	4.40	3
EDUCATIONAL BACKGROUND (%)					
Teacher training	NA	81.50	50.50	40.40	33.70
Non-teacher training	NA	18.50	49.50	59.60	66.30
Bachelor or higher	NA	39.10	84.50	88.60	79.80
Below Bachelor	NA	60.90	15.50	11.40	20.20
QUALIFICATION (%)					
Certified	NA	95.60	95.70	80.60	78.90
Probationary	NA	0.04	1	12	10
Certifying	NA	0.60	1.40	3.40	3.40
Non-certified	NA	3.80	1.90	3.90	7.70
LOCATION (%)					
Aboriginal Areas	NA	2.89	0.87	NA	NA

Source: *Education Statistics of the Republic of China*, 1993.

primary teaching force, 60 percent of primary teachers, and 52 percent of secondary teachers. This trend is mirrored within secondary school levels; 58 percent of junior high school teachers are female; in contrast, 55 percent of senior high school teachers are male. Vocational schools have more male teachers than do college-preparatory high schools (58 percent vs. 53 percent).

On the whole, 85 percent of K-12 schoolteachers work for public schools. Pre-primary schoolteachers work predominantly for private kindergartens (80 percent); primary and junior high school teachers work predominantly at public institutions. This result is consistent with the fact mentioned in the previous section—that pre-primary schools are mainly operated by the private sector, while compulsory education is provided by the government (99 percent). It is interesting to note that, although there are more private senior secondary schools than public ones, more teachers are employed by public high schools (54 percent) and public vocational schools (60 percent).

The majority of primary and secondary school teachers (62.7 percent) range in age between 25 and 45, but the age distribution varies with levels of education. Approximately 10.6 percent of teachers at primary schools, 6.1 percent at junior high schools, and 4.5 percent at senior secondary schools are younger than 25; while 31.8 percent at primary schools, 29.1 percent at junior high schools, and 24.1 percent at senior high schools are above age 45. On the other hand, 57.7 percent of teachers at primary schools, 64.8 percent at junior high schools, and 71.4 percent at senior high schools are between ages 25 and 45.

Turning our attention to the distribution of teaching experience, a large majority of teachers have fewer than 10 years of experience, followed by those with 10–20 years, 20–30 years, and above 30 years. Interestingly, 39 percent of both primary and secondary school teachers have fewer than 10 years of experience, but the percentage of primary school teachers with over 30 years of experience is three times higher than that of secondary school teachers (19.6 percent vs. 4.1 percent). The trend toward inexperienced teachers in secondary schools is shown by the fact that more than 45 percent of teachers at senior secondary schools have fewer than 10 years' experience.

The educational background of primary and secondary school teachers is analyzed from two angles: (1) graduation from teacher training institutions and (2) possession of bachelor's degrees. While 81.5 percent of teachers at primary schools are from teacher training institutions, only 45.1 percent of teachers at the secondary level are from these institutions. Teacher training institutions produce 50.5 percent of teachers at junior high schools, 40.4 percent at high schools, and 33.7 percent at vocational schools.

Because primary school teachers at one time were trained either by "normal" schools (which admitted junior high school graduates into three-year teacher training programs, after which they received the equivalent of a high school diploma), or by junior teachers' colleges (graduates received the equivalent of an Associate of Art, or AA), only 39.1 percent of them have a bachelor's degree. On the other hand, 84.3 percent of secondary school teachers possess at least a bachelor's degree; looking further, 84.5 percent of teachers at junior high schools, 88.6 percent at high schools, and 79.8 percent at vocational schools have bachelor's degrees.

In terms of qualification, teachers are either certified,[2] probationary, in the process of being certified, or noncertified. About 96 percent of teachers in nine-year compulsory education are certified, while only 80 percent of teachers at college-preparatory high schools and vocational schools are certified. This is mainly because 10–12 percent of senior secondary school teachers are probationary, 3.4 percent are in the process of being certified, and 4–8 percent are noncertified.

Only a small number of teachers work in aboriginal areas, including 2,431 teachers at the primary level and 463 at the junior high school level. The number of senior secondary school teachers working in aboriginal areas is not available.

Characteristics of Teaching Employment

After the above description of the characteristics of the teaching profession, attention will now be turned to the characteristics of their employment. School teachers are not considered civil servants in Chinese Taipei. Therefore, a comparison between these two professions is provided below. Civil servants have been regarded as rather prestigious because they must pass highly competitive exams (only 2–10 percent pass). Yet, in a comparison with civil servants, teachers receive higher financial rewards and are more respected.

Teachers are much better paid than are civil servants. Though the basic pay scale for public school teachers reflects the same standards as those for civil service employees, teachers are also paid a research allowance. This means that their monthly earnings are slightly higher than those of civil service employees. Moreover, school teachers also have the advantage of receiving 13.5 monthly payments, even though they don't work during summer and winter holiday sessions, whereas civil servants must work year-round. Finally, primary and junior high school teachers earn tax-free income as a reward for teaching in compulsory education levels.

Pay schedules are identical at all public schools, but those of private schools vary, depending on their individual financial conditions. By and large, private schools attempt to follow the pay schedules set by the public schools.

Teachers who take more administrative responsibilities, who instruct mentally retarded students, or who work in remote areas are paid more than other teachers. This extra compensation represents a reward for accepting a more difficult job and for the additional time and energy devoted to it.

Public school teachers, like civil servants, enjoy such benefits as subsidies for short study tours abroad and for scholarly publications, housing, children's education, and emergencies or calamities. They also receive free medical treatment and cash payments. Free medical treatment includes maternity care for the insured or the spouse of the insured, and health checkups, medical treatment, and hospitalization care for the insured only. Cash payments refer to payments for disabilities caused during the execution of official duties, to old age or senior citizen payments, and to funeral payments on the death of the insured or of his or her dependents. Private school teachers pay a portion of their salary in insurance premiums for medical treatment.

Teachers may voluntarily retire after 25 years of teaching, but retirement is compulsory at age 65. Retirement income may be paid in one lump sum or in monthly installments. Calculation of the one-lump-sum retirement depends on three factors: (1) monthly salary at the time of retirement; (2) monthly food allowance at the time of retirement, calculated by the number of dependents; and (3) length of service. These are all taken into account and then transformed into basic pay units. Schoolteachers earn a maximum of 81 units (20 units more than the maximum for civil servants). Teachers' monthly installment retirement pay is equivalent to approximately 75 to 95 percent of their regular monthly pay at the time of retirement.[3]

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[2] Student teachers from teacher training institutions are included in the definition of certified teachers because they are guaranteed certification after one year of internship.

This compensation is an indication of the high regard in which teachers are held in Chinese Taipei. A survey done by the MOE in 1992 reports that among 40 occupations, secondary and primary school teachers are ranked 13th and 15th; middle-ranked civil servants are ranked 26th.[4]

The public derives its respect for schoolteachers from a traditional respect for Confucius as a teacher. He has been regarded as the greatest teacher in Chinese history. He not only treated students without discrimination, but also taught students according to their ability and individual differences.

Teachers' rights are also well protected. If teachers feel that their rights have been violated by the school or by the educational authorities, they can seek help from professional groups, such as the Association of Teachers' Rights or the National Education Association. When disputes over teachers' rights arise, these associations bargain with the schools or the educational authorities. These organizations, however, are rarely involved in disputes over wage increases; the educational authorities increase teachers' salaries yearly, Chinese Taipei's financial situation permitting.

Because schoolteachers are well paid and highly respected, and have high job security, teaching tends to be their profession for life. However, the fact that about 40 percent of primary and secondary school teachers have fewer than ten years of teaching experience (mentioned previously) is primarily due to: (1) the fact that a large number of teachers have been voluntarily retired; and (2) the fact that many new teachers have entered the teaching profession during the last decade. The turn-over rate of private school teachers is higher because of lower pay and poorer job security. Given the opportunity, teachers at private schools try to move to public schools.

Patterns of Supply and Demand for Teaching Positions

Following is a discussion of the teachers' job market in terms of the sources of teacher supply, the reasons for teacher shortages or surpluses, and the current solutions to these problems. Two possible sources of teacher supply are: (1) graduates of teacher training institutions, including teachers' colleges, normal universities, and a single department of education at one regular university,[5] and (2) graduates of non-teacher training institutions (regular four-year colleges or universities). The first source is the mainstream of teacher supply because these graduates have an obligation to serve as teachers for four years after their graduation.

A teacher shortage occurs when the mainstream teacher supply cannot meet teacher demand, while a teacher surplus occurs when the mainstream teacher supply surpasses teacher demand. This imbalance can occur because of shortages in both quantity and quality. While quantity refers to a teacher shortage or a teacher surplus, quality means a mismatch between what students major in at college and what they teach.

The educational authorities have made tremendous effort in recent decades to balance the supply and demand for teachers. However, they have frequently failed, due to unpredictable events and to a rigid teacher training system. A few years ago, a combination of factors—Chinese Taipei's prosperity, a new government policy allowing retired teachers to visit their relatives on mainland China, and the ample availability of funds for teacher retirement—suddenly caused a serious teacher shortage. More recently, successful family planning has been reducing the pool of school-age children, thereby creating a teacher surplus.

The current teacher training system cannot respond to the unpredictable job market on a short-term basis. Each year, teacher training institutions admit a fixed number of entrants. Also, it takes four years to prepare a teacher, creating a time lag between market supplies and demands.

At the middle of the school year, educational authorities investigate teacher supply and current vacancies in subject areas at all levels of education. If there is a serious teacher shortage at primary or secondary schools, local governments usually hold screening tests to recruit graduates of regular four-year colleges and universities to the teaching profession. However, some of the recruited teachers lack professional teacher training, because regular colleges or universities do not offer these courses. Others lack the ability to teach multiple subjects at primary schools because they usually major in one discipline at college.

Temporary teacher shortages occur when qualified female teachers take six-week pregnancy leaves, when qualified male teachers fulfill their two-year army obligation, or when teachers take long sick leaves. Substitute teachers, who meet lower requirements than do regular teachers, are then hired. These substitute teachers are not guaranteed continuing employment past the duration of the events causing these temporary shortages.

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[3] Education in Chinese Taipei, 1993.

[4] Occupational Prestige and Professional Image of Teachers in Chinese Taipei, 1992.

[5] Chinese Taipei has only one department of education in a regular university. This department was originally set up to prepare educational administrators. For the past few decades, it has also produced teachers, who acquire the same qualifications as those teachers produced at teacher training institutions.

During periods of serious teacher surplus in primary schools, student/teacher ratios are reduced to absorb the oversupplied teachers. When there is a teacher surplus in subject areas at secondary schools, graduates of teacher training institutions may be assigned to teach subjects that do not match their college majors.

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Teacher Preparation Institutions

Chinese Taipei has 13 teacher preparation institutions: 9 teachers' colleges, 3 normal universities, and one department of education in a regular university. While teachers' colleges produce primary school teachers, normal universities and the department of education prepare secondary school teachers. Annually, primary school teacher training institutions enroll about 2,200–3,600 new entrants; secondary school teacher training institutions admit about 2,000 students (see Table 12.5).

Teacher training institutions also have extension divisions. These provide advanced specialty training and professional training for aspiring teachers, probationary teachers, and in-service teachers. These extension divisions, which do not enjoy official sanction, have no faculty and staff of their own, but depend on those from associated undergraduate and graduate divisions. Moreover, without financial support from the government, these divisions must be self-supporting.

Since 1949, the quality of teachers has been upgraded continuously. The institutions that trained primary school teachers had been normal schools, which admitted junior high school graduates into three-year programs. On completion they received high school diplomas. Beginning in 1971, however, normal schools were transformed into normal junior colleges, enrolling junior high school graduates into five-year programs. Graduates earned a degree equivalent to an AA. In 1987, junior teachers' colleges were again upgraded to teachers' colleges, accepting high school graduates into four-year programs. Graduates of these programs earn bachelor's degrees.

Secondary school teachers had been trained in teachers' colleges, which were later transformed into normal universities. Both types of institutions admit high school graduates into four-year programs, culminating in a bachelor's degree. They differ in that teachers' colleges mainly prepare teachers majoring in liberal arts and sciences, but normal universities, which include at least three colleges, produce teachers specializing in liberal arts, science, and vocational areas, such as business and industry.

Policy Guidance

Three government levels have jurisdiction over teacher education. Teacher training institutions are under the control of the central government because they are postsecondary. Thus, the Ministry of Education approves establishment of new departments at teacher training institutions (or a new teachers' college or normal university). It also controls admission to these institutions (through nationwide college and university entrance examinations), and determines required courses and graduation requirements.

Under the current system, provincial/municipal governments have jurisdiction over senior secondary education, and municipal and county/city governments have jurisdiction over compulsory education. As a result, the recruitment, certification, on-the-job training, and retirement of schoolteachers are in the hands of local governments, the DOEs and BOEs.

TABLE 12.5
Enrollments of Teacher Training Institutions (TTI)

	1990	1991	1992	1993
Primary School TTI	2,210	2,520	3,074	3,612
Secondary School TTI	2,194	1,929	2,307	2,582
Free Education	1,958	1,689	2,071	2,258

Note: While all students of primary school teacher training institutions enjoy free education, some from secondary school teacher training institutions do not. Thus, for secondary school teacher training institutions, the upper figures indicate the enrollments and the bottom figures present the number of students receiving free education.

Source: Survey done by the Department of Secondary Education, Ministry of Education, 1993.

Teacher education accounts for an increasing percentage of the educational expenditure by the MOE. In 1993, the expenditure for teacher education at nine teachers' colleges and three normal universities accounted for 7 percent of the educational expenditure by the MOE, which is 20–25 percent of the expenditure for public, four-year college and university education. To put this in perspective, students in teacher training institutions account for only 18 percent of all the public four-year college students.[6]

Accreditation/Approval

There are several characteristics that distinguish teacher training institutions and their graduates from regular colleges and universities.[7] First, all 13 teacher training institutions are established and funded by the government. The private sector may not set up teacher training institutions. This is the case because, first of all, teacher education in Chinese Taipei is regarded as an aspect of national defense policies and thus falls under the auspices of the government. Chinese Taipei has been under the threat of invasion and teachers are responsible for producing citizens who are educated about and supportive of military defense. Second, such control over teacher training institutions allows the government to balance teacher supply and demand.

Third, all full-time undergraduate students of most teacher training institutions, half of the students in one normal university, and half of the students at the department of education in the regular university are given free education, free textbooks, uniforms, and room and board throughout their four-year programs. These incentives have been useful in attracting talented students into the teaching profession.

Fourth, on completion of four-year programs of study, those undergraduate students who have received a free education must spend the fifth year teaching—at either primary or secondary schools—as a requirement for the bachelor's degree. This teaching practicum assists student teachers in putting pedagogical theories into practice. It also functions as a means of aiding undergraduates in their transition from the role of being a student to that of being a teacher. During their internship, student teachers are paid as practicing teachers.

Fifth, on completion of the one-year teaching practicum, graduates are obliged to teach for four years at primary or secondary schools as full-time teachers. This requirement serves to ensure them employment, as well as to supply qualified teachers to schools.

Sixth, primary and secondary school teachers are trained at different institutions. Teachers' colleges produce primary school teachers. Primary teachers teach the entire range of subjects to the same students. Among these subjects are Chinese, mathematics, social sciences, natural sciences, music, crafts, and fine arts. Normal universities and the one university department of education prepare secondary school teachers specializing mainly in a single-subject area.

Seventh, teachers' colleges and normal universities are the only institutions providing teacher training. Regular college graduates who intend to become teachers, and probationary and noncertified teachers who are recruited during teacher shortages, must earn up to 20 credits in professional courses at teacher training institutions.

Finally, only teacher training institutions have affiliated K-12 experimental schools. These schools are primarily set up to provide the teaching practicum for the fifth-year students. They also allow demonstration of, and experimentation with, new teaching theories, materials, and methods. At each teacher training institution, there is a Council on Teaching Practicum, which is in charge of the fifth-year internship. These councils work closely with the affiliated schools on matters concerning student teaching.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of the Teacher Preparation System

The goal of teacher education is to equip teachers with broad backgrounds, solid academic specializations, and effective teaching skills. Specifically, teachers' colleges train primary school teachers as generalists, who stay with students the whole day and cover all subjects. Normal universities and the one university department of education produce secondary school teachers who teach in one subject area.

Academic Preparation Prior to Preservice Teacher Education

As previously noted, high school graduates are admitted to colleges or universities after passing nationwide Joint College Entrance Examinations administered by the Ministry of Education. They are evaluated based on: (1) their test scores; (2) the minimum test scores required by the departments at teacher training institutions; and (3) the student's choice of school and department. These factors determine if and where a student is admitted.

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[6] It is difficult to compare per-student expenditure in teacher training institutions with that of regular four-year colleges and universities because the percentages of expenditure in the latter include both undergraduate and graduate education, while the percentage of students in the former only takes undergraduate students into account.

[7] The characteristics are based on the current Law of Teacher Education, which has been implemented since 1979.

A large number of talented but poor students once chose teacher training institutions as their top priority because teacher education was free, because jobs were guaranteed, and because the teaching profession was highly respected. Although aspiring teachers are still talented individuals, the majority of them no longer come from lower socioeconomic backgrountls. This is due to the overall improvement in living standards in Chinese Taipei.

Based on their competitive test scores on the entrance examinations, high school graduates in the liberal arts still view teaching as a desirable career. Thus, only those liberal arts students who score highest on the tests, and who set teaching as their top priority, are admitted to teachers' colleges or normal universities. On the other hand, those students talented in math and natural sciences tend not to set teaching as their top priority, due to the availability of more desirable career choices. Consequently, when liberal arts and math and science students of the teacher training institutions are compared, the ability level of the former appears to be higher than that of the latter.[8]

In addition to the different test scores of students from different subject areas, there is also a difference between teachers' colleges and normal universities. Even though primary and secondary school teachers with the same qualifications earn the same pay, secondary school teachers usually have higher social status than do primary school teachers. Therefore, the test scores for normal universities are higher than those for teachers colleges.[9]

There is one exception for admission to teacher training institutions: Native students from rural areas and "overseas Chinese" may take a smaller-scale examination. This exception to the normal requirements is a result of attempts to deal with the problem of recruiting teachers for rural and underpopulated areas. Teacher training institutions set quotas for students from these areas. Under the quotas, students compete for entrance only with students from their own areas. On completion of their education, these students are then required to return to their hometowns to teach.

The number of new entrants to teachers' colleges and normal universities is fixed by the government, and therefore is not responsive to the market demand for teachers. Since 1990, the number of yearly graduates of primary school teacher training institutions has remained at approximately 2,400, whereas that of secondary school teacher training institutions has remained at approximately 1,900.

Nature and Content of Preservice Teacher Preparation Curricula

Teacher education requires four years of academic study on campus and one year of teaching practicum at either primary or secondary schools. During their four-year academic studies, students are required to take 148 credits, 20 credits more than those in other universities or colleges. The course of study covers general education, professional training, and academic specializations. While both primary and secondary school teacher training institutions provide the same general education, the professional training and academic specialization programs differ for these two types of training institutions.

General education provides college students majoring in different fields with a common core of education. It consists of 28 credits of required courses for all college students, including Chinese language, foreign languages, contemporary Chinese history, studies in the constitution of Chinese Taipei and in the thought of Dr. Sun Yat-sen, and various other liberal arts courses.

The purpose of 20 required credits of professional training is to assist teachers in teaching more effectively. For primary school teachers, professional training includes courses in primary education; educational psychology; teaching principles; types of teaching materials and methods in language arts, social studies, mathematics, natural sciences, music, fine arts, and crafts; and teaching practice.[10] For secondary school teachers, professional training includes 16 credits of required courses, such as the introduction of education, secondary education, educational psychology, teaching principles, teaching method and teaching practicum, and four credits of elective courses, chosen from educational philosophy, educational sociology, vocational guidance, audiovisual education, and moral principles.[11]

Academic specializations are defined as the subject areas that students will teach in the future. Hence, "specialization" has a different meaning for primary and secondary school teacher training institutions. Because primary school teachers have to teach all subjects, primary school training institutions require a broad array of subject areas, such as language arts, social sciences, mathematics, natural sciences, music, fine arts, and crafts. Although they are trained as generalists, students are also required to specialize in one subject area. On the other hand, students of secondary school training institutions major in one subject area. Nevertheless, students have been encouraged to take a minor because of the recent problems in matching students' majors with available teaching positions.

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[8] Minimum test scores in each department of each college and university are available from the Committee of Joint College Entrance Examinations.

[9] Ibid.

[10] Curriculum Guidance for Teachers Colleges, 1993.

[11] The 20 credits of professional training are cited from Regulations for School Teachers to Register, which have been implemented since 1987.

The content of teacher education is designed so that teachers may teach in generic, not particular, areas. The courses offered in teacher training institutions are similar to those in regular colleges and universities, and therefore are not quite linked to the curriculum at primary and secondary schools. Teachers have to apply what they learn and tailor the teaching materials to meet individual needs. After four years of academic studies on campus, students from teachers' colleges work as student teachers at primary schools. Students from normal universities and the one university department of education teach at secondary schools for one year. Practicing teachers at their secondary practicum school, and the professors from college, help them through the transition from student to teacher.

CERTIFICATION

In Chinese Taipei, teachers must register with the educational authorities to become qualified. Graduates of teacher training institutions need only register as certified teachers. Conversely, graduates of non-teacher-training institutions must complete any professional training they have missed, pass screening tests of teacher recruitment, and then register as certified teachers.

Graduates who enjoy free, four-year undergraduate education from the 13 teacher training institutions are assigned to teach at either primary or secondary schools after they complete their education. When they are employed by school principals, schools will do the paperwork to get their teachers registered with the DOE at provincial/municipal government levels.

Status of Qualifying Conditions

Teacher training institutions supply more than 80 percent of primary school teachers, but produce only 45 percent of secondary school teachers. As a result, a large number of secondary school teachers are provided by non-teacher-training institutions. The graduates of non-teacher-training institutions have to satisfy two prerequisite conditions to become secondary school teachers: (1) obtain at least 20 credits in an academic specialization in the subject area a teacher intends to teach; and (2) obtain at least 10 credits for master's degree holders, or 20 credits for college graduates of professional teacher training. The 20 credits of academic specialization are usually accredited by experts in the field, on request of the MOE. The credits of professional training come from required courses for secondary school teachers.

College graduates with a major specialization (or studies in a field related to a major specialization), a minor specialization, or at least 20 credits of other academic specialization meet the specialization requirement, but lack professional training. Because regular four-year colleges and universities are not allowed to provide professional teacher training courses, their students must pass exams to return to teacher training institutions for one-year, postbachelor's educational programs.

When the demand for teachers in certain subject areas outstrips the supply of teachers from teacher training institutions, graduates of non-teacher-training institutions who have majored in those subject areas, as well as completed professional training at postbachelor's educational programs, are recruited to teach through screening tests held by local governments. The screening tests usually include written tests, oral exams, and teaching tests. Those who pass the screening tests and are employed by schools are ready for registration. Sometimes, the shortage in certain vocational subject areas is so serious that probationary teachers, who fulfill academic specialization requirements but who have not yet taken professional training classes, are also recruited. They are required to make up professional training in five years, and then are eligible for registration.

Registration is a necessary process for all teachers to become certified (qualified). Most primary school teachers are registered as generalists; a few are registered as specialists in music, crafts, fine arts, and physical education. On the other hand, all secondary school teachers are registered as specialists. Some secondary school teachers teach only their major subject area. However, secondary school teachers are often required to teach other subjects, due to difficulties in completely matching their college major with what they teach in secondary schools. Teachers can register as certified teachers only in subjects comprising over half of their teaching hours each semester. At most, a teacher can register in three subject areas during his or her entire teaching career. Teachers try to register in more than one subject, in case there are not enough classes to teach in a particular subject area.

Certification Reauthorization

If a certified teacher leaves the teaching profession for more than ten years, re-registration is necessary. Probationary teachers are temporarily employed; they have to complete their professional training in five years. On completion, they then qualify to register as certified teachers. Otherwise, they become uncertified and have to leave their teaching jobs.

ON-THE-JOB TRAINING AND DEVELOPMENT

Various types of on-the-job training have been offered to upgrade teacher quality. Training can be either degree-oriented or non-degree-oriented. Non-degree-oriented training may or may not be taken for credit. The following section discusses major types of on-the-job training provided, the institutions offering training, the incentives, and the expense of training.[12]

Professional Development Opportunities

Along with the upgrading of teacher training institutions, provision has been made for existing teachers with degree-oriented programs to improve their academic qualifications. For example, pre-primary school teachers with high school diplomas are encouraged to pursue associate degrees through summer school or night school courses. K12 schoolteachers already possessing associate degrees are also encouraged to earn bachelor's degrees. Many teachers have benefited from these programs because pay scales are related to level of education.

Credit-oriented training includes 40-credit graduate programs, postbachelor's teacher training programs, and academic specialization programs. Secondary school teachers with bachelor's degrees may apply for 40-credit graduate programs. The courses are offered in summer, on weekends, and at night. On completion of 40 credits, teachers acquire certificates of credit instead of master's degrees because they have entered graduate schools without passing entrance examinations. Those who complete the program: (1) have their salaries increased by four levels; (2) improve their chances of promotion; (3) waive as many as half of the required credits if they pass the entrance exams and can enter graduate schools. Moreover, during their studies, they pay half of the expenses and the educational authorities provide the rest in financial support. All of these strong incentives entice in-service secondary school teachers into on-the-job training. In the tough competition for in-service training opportunities, teachers with more seniority, more publications, and degrees from teacher training institutions have the best chance of being successful.

Postbachelor's teacher training programs are offered to probationary teachers and college graduates who intend to become teachers but who lack the required professional training. They must pass screening tests to enter the programs, where they can earn the required 20 credits of professional courses in education. Students can complete this program in two summer sessions or in one year of evening sessions. On completion, they earn a certificate of teacher training, which qualifies probationary teachers and helps aspiring teachers satisfy prerequisite requirements as teacher candidates.

Recently, because of the mismatch between what teachers major in at college and what they teach at school, teachers have been encouraged to study in minor subject areas. Once they accumulate 20 credits of an academic specialization, they can be registered as certified teachers in that subject area in the future. Under the current circumstances, an added specialization improves teachers' chances of employment.

Various noncredit programs are also offered to enhance in-service teachers' knowledge and to enable them to adapt to innovative educational materials and methods. The length of programs varies, lasting from one day to several weeks. The programs are held in the form of workshops, seminars, or symposia.

All of the above professional programs are offered by 13 teacher training institutions and by four teacher training centers. Discipline-based academic courses are provided by both regular colleges and universities and by teacher training institutions.

The fees for degree-oriented programs and 40-credit graduate programs are shared by the educational authorities and the beneficiary. In some counties/cities, the expense of postbachelor teacher training programs for probationary teachers is shared by local governments and probationary teachers; in other counties/cities, fees are paid solely by the teachers. Prospective teachers attending postbachelor's professional training have to pay their own expenses. Non-credit programs are usually supported financially by the educational authorities.

POLICY ISSUES AND TRENDS FOR TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Although current teacher education has made a great contribution to Chinese Taipei, the dramatic social and political changes brought about by the lifting of Martial Law in 1987 have pushed the government to reconsider the future course of teacher education. This section discusses the issues and challenges Chinese Taipei is facing and how the government plans to solve the problems.

Present Concerns for Change and Improvement

The first challenge regards the government monopoly on teacher training institutions. The current laws mandate that nine teachers' colleges, three normal universities, and the one university department of education are the only institutions responsible for preparing K-12 school teachers.[13] Ironically, these institutions fail to supply enough teachers for skills-oriented senior vocational schools. Consequently, regular four-year college graduates majoring in vocational subjects are employed as probationary teachers. Lacking 20 credits in professional courses, these probationary teachers must spend another year in postbachelor's professional programs at teacher training institutions at the same time they are teaching school. Limited opportunities for probationary teachers have caused numerous complaints. Moreover, current teacher training policy precludes other college graduates with solid academic backgrounds and strong enthusiasm from becoming teachers. All of these problems put pressure on the government to review the policy on teacher education.

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[12] A Comparison Study of Teacher Education in Major Countries, 1992.

The frequent imbalance of teacher supply and demand is a recurring problem. One of the government's justifications for retaining the exclusive right to establish and fund teacher training institutions is the need to control the balance of teacher supply and demand. However, the rigidity of the teacher training system and the difficulty of reliable prediction inhibit the government's efforts in this regard. Those receiving free teacher education are obliged to teach at primary or secondary schools. This obligates the government to find them teaching posts. Fixing the number of new students annually recruited by these teacher training institutions makes it impossible to respond to the varying demand for teachers. Furthermore, the time lag between admitting students and graduating teachers makes prediction of supply and demand inaccurate. Accordingly, it is not surprising to see teacher shortages at one time and oversupply at another.

In addition, the quality of graduates from teacher training institutions frequently has been questioned. The current law requires that students who enjoy four years of free education must serve as schoolteachers for four years in return, after their graduation. In other words, regardless of their academic performance, once students enter teacher training institutions, they are guaranteed teaching jobs and will become certified teachers. Under this law, inept teachers may be protected if they attended a teacher training institution.

Many teachers complain that, although respected in society, they have not received the same kind of fair treatment enjoyed by professionals such as doctors, accountants, and lawyers. The competitive licensing tests for graduates from medical, law, and business schools bestows professional stature. In contrast, the fact that graduates of teacher training institutions are entitled to teach without licensure probably detracts from their professional standing.

Another criticism of the present system is that students at teachers' colleges have trouble identifying with, or easily accepting, their role as students of primary school teaching preparation. More than half of primary schools are small in size, and thus have fewer than 12 classes. This means that there are two classes per grade for each of the six grades. Each class is assigned only 1.5 teachers. This situation requires primary school teachers to teach many more subjects than do secondary school teachers. Thus, primary school teachers must teach—and therefore learn to teach—Chinese, mathematics, social sciences, natural sciences, fine arts, crafts, and music. Studying this range of subjects allows only a superficial mastery of any one particular subject.

Students at teachers' colleges tend to identify themselves instead with other college students who major in more in-depth, traditional disciplines, like Chinese literature, physics, history, and so forth. This results in a lack of enthusiasm on the part of students, some of whom drop out of school to retake the college entrance examinations.

Faculty and staff at teacher training institutions complain of their heavy workload. Because extension divisions are not mandated under current law, faculty and staff must provide preservice training and in-service training on their own time. This leaves little time to do research, and leads to general exhaustion. The extension divisions' dependence on undergraduate and graduate divisions for faculty limits their ability to make systematic, long-term plans for in-service teacher training.

The final problem is that teachers are entitled to teach throughout their entire careers without participating in on-the-job training. Current in-service training policy encourages teachers to improve themselves through positive incentives, rather than through penalties. Therefore, teachers who are not interested in on-the-job training are protected. In fact, it is unrealistic to require all teachers to receive timely in-service training because the 13 teacher training institutions cannot provide enough opportunities for the approximately 187,000 school teachers.

Present and Long-Range Plans for Improvement

Confronted with the above problems, the MOE has recently revised the law on teacher education. In response to the complaints about the monopoly on teacher training institutions, the new law relaxes the restrictions on providing educational programs in regular colleges and universities. In the near future, many regular four-year colleges and universities are expected to apply to the MOE to establish new departments of education, or to offer educational programs, thus reducing the distinction between these universities and colleges and the teacher training institutions. This will expand the methods of training teachers.

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[13] The current Law of Teacher Education has been implemented since 1979. The new law, called Law of Teacher Preparation (including preservice, internship and in-service training), is under revision by the legislature.

Many educators are worried that the above liberal policy might cause a decline in teacher quality. In order to assure teacher quality and to professionalize teaching, the new law requires that all new teachers be licensed like lawyers and doctors. First, a student must complete 20 credits of teacher training courses in addition to the standard 128 credits for the bachelor's degree, thus meeting the requirements for becoming a student teacher. Then he or she has to find a school in which to do his or her internship for a year. On completing the internship, he or she has to pass a licensing test to become a licensed (qualified) teacher. Graduates of teacher training institutions are also subject to these requirements. Through the strict process of licensing, teacher quality is expected to be assured and teaching is expected to become professionalized.

To avoid the imbalance of supply and demand for teachers, the new law makes the teacher training system so flexible that it can respond to the market easily. Free teacher education will be limited to certain subject areas in which there is a serious teacher shortage and is limited to geographic areas where teachers are difficult to recruit. In other words, students enrolled in teacher training programs must pay for their education themselves and the government will no longer have the burden of assigning them to jobs as was previously the case. A neutral professional association will be set up to provide information for aspiring teachers on the number of teachers available and the vacancies in each subject area at each school. The licensing system will be used to adjust the supply and demand for the teaching force.

The new policies may help students at teachers colleges better identify with future primary school teaching jobs covering many subjects areas. Currently, high school graduates must choose a major when they take the entrance examination. In the future, college students will receive general education for the first two years and will not decide on their major until the third year. This will encourage students of teachers' colleges to broaden their knowledge of subject areas. This will better prepare them for jobs as primary school teachers.

The new law not only legitimizes extension divisions but also eases the limitations for institutions offering on-the-job teacher training. Extension divisions will be able to have their own faculty and staff and to make long-term plans for in-service training. Moreover, because more institutions can provide on-the-job training, teachers can no longer use insufficient training opportunities as excuses to avoid training. Thus, the ideal of requiring teachers to renew their licenses every ten years based on in-service training will become feasible.

CONCLUDING REMARKS

During the past few years, Chinese Taipei has experienced significant political and social changes. Aligned with these changes, there has been a growing consensus that teacher education needs to be reformed. The recent dramatic revision of the law on teacher education is a result of great effort. As teacher education progresses into the next stage—implementing the laws—new types of problems will occur and the educational authorities will be ready for the new challenges.

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The Teaching Profession and Teacher Education in the United States

Submitted by: Office of the Under Secretary,
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THE CONTEXT OF SCHOOLING IN THE UNITED STATES

In 1990–1991 there were approximately 105,000 elementary and secondary schools serving about 45 million students in the United States. Of these, about 80,000 were public schools and about 25,000 were private schools. Nearly 90 percent of elementary and secondary students attend public schools (National Center for Education Statistics [NCES], 1993a). In both the public and private sectors, about two-thirds of all schools are elementary (NCES, 1993a). School size varies by level, sector, and type of community. Typically, for each type of community, elementary schools are smaller than secondary schools (500 students on average as compared with 1,100 students). Public schools at each level are larger than private schools. Urban schools tend to be larger than suburban or rural schools (NCES, 1993b). Definitions of levels of schooling are provided in Table 13.1.

Approximately one-half (40,000) of public schools are located in rural or small town communities, 21,000 are located in urban fringe areas or large towns, and the remaining 19,000 are located in central cities. Private schools are distributed more evenly, with slightly more located in central cities. Most private schools are religiously affiliated (about 20,000), with Catholic schools being the single largest group (about 9,000). The remainder are nonsectarian independent schools, many of which have a particular educational focus or serve students requiring special education for students with disabilities (NCES, 1993d).

Students ordinarily spend six years in the elementary grades, often preceded by one to three years in preschool programs. Fifty-five percent of 3- to 5-year-olds were enrolled in preprimary programs as of 1992 (NCES, 1993d). After elementary school, students generally spend six years in secondary school, through grade 12, usually finishing by about age 17 or 18. In 1990–1991, about 12 percent of 16- to 24-year-olds had failed to graduate from high school (NCES, 1993d).

About 14 million students are enrolled in postsecondary education in two- to four-year colleges, including about 32 percent of 20- to 24-year-olds. There are 3,600 such institutions in the United States. Some students enter technical or vocational schools after high school. There are over 6,000 such noncollegiate institutions offering postsecondary education and training (NCES, 1993a). Overall, about 59 percent of twelfth graders apply to two- to four-year colleges

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TABLE 13.1
Definitions of Levels of Schooling

Levels of Schooling	In Terms of Grade/Levels	Age Range of Students	Type and Level of Education Required to Teach at This Level
PREPRIMARY SCHOOLING	Prekindergarten	2–5 years	High school diploma or equivalent
PRIMARY SCHOOLING Elementary schools include "primary" grades and "upper elementary" grades	Primary grades: kindergarten & grades 1–3; Middle or upper elementary: grades 4–6	5–11 years	Bachelor's degree, including elementary education courses; Master's degree in some states for permanent license
SECONDARY SCHOOLING Middle or junior high schools: grades 6–8/9; High schools: grades 9–12	Grades 7–12	12–18 years	Bachelor's degree with a major in discipline to be taught; Master's degree in some states
POSTSECONDARY EDUCATION	Bachelor's, Master's, & Doctoral levels	18/19 and older	Doctorate
PRESERVICE TEACHER PREPARATION	Bachelor's and/or Master's level	18–22 years and older	Doctorate

(53 percent in the public sector and 76 percent in the private sector).

Of students attending elementary and secondary schools in 1991, about 70 percent are classified as white,[1] 15 percent as black, 11 percent as Hispanic,[2] 3 percent as Asian or Pacific Islander, and 1 percent as American Indian or Alaskan Native (NCES, 1993b). Students of color are more heavily concentrated in the public sector than in private schools, and in central cities than in suburban or rural areas. Proportions of nonwhite students have been increasing steadily for two decades. In 1976, students of color (nonwhite students) accounted for about 24 percent of public elementary/secondary enrollment. By 1986, the percentage had increased to 30 percent. By the year 2020, it is projected that as many as 46 percent of all children in public elementary and secondary schools will be students of color (NCES, 1991).

Dropout rates for black and Hispanic students remain higher than those for white students, and matriculation rates into higher education remain lower (NCES, 1991). The 12 percent of 16- to 24-year-olds who had dropped out in 1991 represented 9 percent of white youth of that age, 14 percent of black youth, and 35 percent of Hispanic youth (NCES, 1993d). Of high school graduates age 18 to 24, 41 percent of whites were enrolled in college in 1992, compared with 28 percent of blacks and 31 percent of Hispanics. The number of students of color in colleges (two- and four-year institutions) rose from 15.4 percent in 1976 to 17.9 percent in 1986. Much of the change can be attributed to the significant increase in the number of Asian students. The proportion of black students in college fell from 9.4 percent to 8.6 percent during this same period, due to the declining enrollment of black males.

Overall, the racial-ethnic composition of the teaching force does not match that of the students they teach. In the public sector, only 8 percent of the teachers are black, non-Hispanic; 3 percent are Hispanic; and 1 percent are Asian (NCES, 1993b). Teachers work with different racial-ethnic mixes of students depending on the type of community in which their school is located and whether they teach in the public or private sector. Public schools are located in local school districts that, by and large, reflect the surrounding community. In some districts, children are bused in from neighboring communities in an effort to create a more diverse racial/ethnic mix in the schools.

The governance system for U.S. schools is extraordinarily complex and highly decentralized. The 80,000 public elementary and secondary schools are located in 15,000 local school districts that have substantial governance authority. These districts are located within 50 states, which also have substantial governance authority and hold state constitutional authority for providing education. States have major regulatory responsibilities for defining educational programs, although some are more directive of local districts than others.

Private schools are much less heavily regulated than public schools. State involvement in private schools varies widely from state to state. For example, some states require private school teachers to hold a teaching license; others do not have to. In some states, private schools must meet specific curriculum and testing requirements; in others they do not have to. Most states regulate health and safety matters in private as well as public schools.

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[1] This figure excludes persons of Hispanic origin.

[2] Hispanic origin citizens may be of any race.

Given state constitutional authority for providing education, much of the funding for education resides with state authorities. On average, states provide about half of the revenues for public education, allocating funds to districts to augment locally raised revenues (most frequently raised by property taxes), usually in an "equalizing" fashion, to compensate for differentials in local wealth. However, the proportion of state and local funding varies tremendously between states. For example, public education in Hawaii is virtually all state-supported, whereas, in New Hampshire, funding for public education comes largely from local funding. Within states, substantial disparities in funding remain, with high-spending districts within any given state usually spending two or three times more per pupil than low-spending districts. The federal government has a small role with respect to the funding and governance of education, providing only about 6 percent of the total funds at the elementary and secondary levels, with most earmarked for special purposes: for example, programs aimed at the education of handicapped, "limited English proficient," or low-income students.

Funding for special needs of students is partly provided through federal or state "categorical" programs. Categorical programs are those financed through funds set aside to address specific populations or areas of concern. About 96 percent of all public schools offer free or reduced-price lunches paid for with public funds. Eighty-six percent of all public schools offer services for handicapped students, 83 percent offer remedial programs, and 80 percent offer diagnostic and prescriptive services. Approximately 67 percent offer federally funded services to address the special educational needs of economically disadvantaged students and 75 percent offer gifted and talented programs. Bilingual education and English as a Second Language (ESL) programs are also represented in a number of public schools (19 percent and 41 percent respectively) (NCES, 1993b).

A DESCRIPTION OF THE TEACHING FORCE

Characteristics of Teachers

In 1991, the U.S. teaching force was comprised primarily of women (72 percent of all teachers and 90 percent of all elementary teachers), most of whom were white (87 percent) (National Education Association [NEA], 1992). Teachers generally come from working-class backgrounds (60 percent) and are first-generation college graduates (about 80 percent) (NEA, 1981, 1987). Approximately 54 percent live and work in metropolitan areas (U.S. Bureau of the Census, 1984). Public school teachers are an aging and highly experienced group; the median age has climbed from 33 in 1976 to 42 in 1991 (NEA, 1992). Just over 50 percent have a master's degree and more than 15 years of teaching experience (NCES, 1991). Nearly 23 percent were over 50 in 1991, and thus nearing retirement eligibility (NEA, 1992).

Compared with the general college-educated workforce, teachers are older, earn less, and are more likely to be female (U.S. Bureau of the Census, 1984). Teaching, like nursing, was traditionally a field open to women and people of color in times when fields like medicine, law, engineering, and other professions were essentially closed to these populations. Throughout the 1970s and 1980s, the proportion of college females and students of color going into teaching declined markedly as other career opportunities opened up (Darling-Hammond, 1990a). Overall, the number of bachelor's degrees conferred in education declined by over 50 percent between 1972–1973 and 1985–1986. In recent years, some upswing in the number of prospective teachers has begun to occur with incentives, salary hikes, and increased demand.

Characteristics of Teaching Employment.

In 1991, American elementary school teachers worked an average of 45 hours per week and secondary teachers spent an average of 50 hours per week on all duties. U.S. teachers work an average of 185 days per year (180 teaching days and 5 nonteaching days), a policy that has not changed over the past three decades (NEA, 1992). Class sizes average about 24 students in public schools and 20 in private schools (NCES, 1993b). In both the public and private sectors, classes in the central cities are larger than those in other community types.

Teachers typically spend most of their time teaching large groups of students. They typically have one "preparation period," a period of 30–50 minutes daily, in which to prepare for classes. In 1991, elementary school teachers were given approximately three hours per week to prepare for classes and secondary school teachers averaged about five hours per week for preparation. However, 5 percent of secondary teachers and 10 percent of elementary teachers had no preparation time at all in their weekly schedule (NEA, 1992). In most schools, teachers are not expected to meet jointly with other teachers, to develop curriculum or assessments, to observe or discuss each other's teaching, or to meet individually with parents and students. In general, time is not provided for these kinds of activities.

The average public school teacher with 15 years of experience earned a salary of $34,934 in 1992 (NCES, 1993d). Beginning teachers earned $23,054 on average. This was just slightly higher in real dollar terms than salaries in 1972, before the decline in purchasing power that occurred during the 1970s and 1980s. In general, teachers earn 20–30 percent less than professionals in other occupations requiring similar educational preparation (Darling-Hammond & Berry, 1988; Gray et al., 1993). Though some of the differential in compensation can be accounted for by the fact that most other professionals work more than 185 days per year, a substantial gap remains after this is taken into account. Private school teachers generally earn less than their public school counterparts (NCES, 1993c).

Salaries are not governed by market conditions, but by state and local governmental budgetary actions (Sykes, 1989). These depend in turn on local wealth, tax rates, and willingness to spend on education. Salary levels vary greatly among local educational agencies within states and among the states themselves. These variations influence the teacher labor market, contributing to surpluses of qualified teachers in some locations—typically wealthy suburban districts—and shortages in others—generally central cities and poor rural areas.

Over most of the last 50 years, salary scales within districts have been on a fixed schedule that is uniform for all teachers. The amount a teacher earns is based on his or her years of experience and level of education. Thirty states presently have mandated minimum compensation levels for teachers statewide, and 19 states have statewide salary schedules beyond the minimum, usually with a one-step increase in salary for each year of experience. In other states, salary schedules are developed at the local district level, also featuring annual "steps" for experience and additional pay for additional education beyond the bachelor's degree. Typically, schedules are flat and guarantee smaller salary increases with increasing years of experience. Thus, there is not a wide range between the salaries of beginning teachers and those of the most experienced in any given district.

Benefits (nonwage assistance for such things as medical insurance and retirement) are an important part of a teacher's earnings or salary package. In the public sector, retirement plans are almost universal. In the private sector, retirement plans are less available, covering only 54 percent of private school teachers. Ninety-six percent of public schools offer medical insurance to teachers, and most also offer dental insurance (67 percent), life insurance (71 percent), and in-kind benefits, like free or reduced lunch, or reimbursements for tuition and course fees (70 percent). In the private sector, about 74 percent of schools offer medical insurance, but fewer than half offer dental insurance (38 percent) or life insurance (46 percent). Two-thirds of private schools offer in-kind benefits such as those mentioned above and/or tuition scholarships for teachers' children to attend the schools where they work (NCES, 1993a).

During the 1980s, 29 states introduced some kind of career ladder, merit pay, or incentive pay system for teachers. These systems may be statewide or locally based. Such ladders were intended to raise salary levels based on performance and make teaching more attractive to talented teachers. However, most merit pay schemes have already been discontinued due to administrative and evaluation problems. A few career ladders continue to exist. Programs designating teachers as "master" or "mentor" teachers with special responsibilities continue in larger numbers; however, this practice is not common in most districts. These programs allow teachers to engage in work like curriculum development or assistance to new teachers—work traditionally reserved for administrators and supervisors (Darling-Hammond, 1990b; Darling-Hammond & Berry, 1988).

These initiatives are also an attempt to alter the "flat" career structure of teaching. In the work environment, there is little differentiation between beginning and veteran teachers and little variety at any career point in teachers' responsibilities. U.S. teachers are expected to spend virtually all of their time instructing classes of students (usually ranging in size from 20 to 30, depending largely on the wealth of the school district in which they work).

Veteran and novice teachers usually have similar responsibilities. Because there are few rewards for expertise or longevity in teaching, a seniority system has emerged that often permits veterans to opt for "easier" assignments. Novice teachers, having the least experience, are often assigned the least desirable tasks within a school, such as classes that serve the most educationally needy children and duties like lunchroom, hall, and/or bathroom monitoring. New teachers are disproportionately hired in the least economically advantaged schools, which have the highest rates of teacher turnover. Veteran teachers in large districts frequently transfer to more desirable schools at their earliest opportunity (Darling-Hammond & Berry, 1988; Wise, Darling-Hammond, & Berry, 1987).

Teacher unions are powerful influences on teacher's work lives and school operations in most states.[3] Two unions dominate collective bargaining in teaching: the National Education Association (NEA) and the American Federation of Teachers (AFT). In 1991, these organizations represented 66 percent and 12 percent of the teaching force, respectively (NEA, 1992). Teachers are not required to become members of a union; however, most elect to do so.

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[3] There are a few states that continue to bar collective bargaining. In these states, unions exist but they function only as professional associations. They do not bargain.

Unions negotiate with local school boards to establish a contract that defines salaries, benefits, due-process procedures, and work rules that, in many ways, set parameters for teachers' work. Though unions continue to function primarily as collective bargaining agents, there have been some recent changes in the traditional roles unions have played. Increasingly, teacher unions are involved in setting standards for teachers, working on school reform, and initiating new educational programs (Kerchner & Koppich, 1993).

Supply and Demand

Teacher demand has been increasing since the mid-1980s as a function of increasing birth rates and immigration, declining pupil/teacher ratios, and increasing turnover of teachers due largely to retirement. The total number of full-time-equivalent teachers in public and private schools increased from 2.5 million in 1980 to 2.8 million in 1991, and is projected to reach 3.3 million by the year 2002 (Gerald & Hussar, 1991). Between 1995 and 2005, the demand for newly hired teachers is expected to reach about 250,000 annually, with a similar rate of demand in the decade following (Darling-Hammond, 1990a; NCES, 1991).

Recurring shortages of teachers have characterized the U.S. labor market for most of the twentieth century, with the exception of a brief period of declining student enrollments during the late 1970s and early 1980s (Sedlak & Schlossman, 1986). Currently, increases in demand and recent declines in supply have re-created shortages in a number of areas and teaching fields. In the 1980s, teacher shortages appeared in areas such as bilingual education, special education, physics, chemistry, mathematics, and computer science. Recently, areas such as biology, general science, industrial arts, foreign languages, gifted education (programs for exceptionally talented children), school psychologists, elementary guidance counselors, and librarians have joined the list (Akin, 1989; Darling-Hammond, 1990a). Shortages are most severe in central cities and in growing regions of the country, such as the South and West.

In addition to enrollments, other factors that influence the demand for teachers are community wealth and goals for education. The types of teachers sought by different communities also vary. Education in many suburban communities has traditionally stressed an academic college preparatory curriculum, which requires more mathematics, science, art, and humanities teachers. In urban areas, which have stressed more vocational education and serve a wide variety of special populations of students, bilingual, vocational, and special education teachers are more in demand. Current reforms, however, are heightening demand for academic teachers in all communities, especially in mathematics and science, where course-taking expectations are increasing (Akin, 1989; Association for School, College, and University Staffing, 1984; Darling-Hammond, 1990a; Levin, 1985; National Science Board, 1985).

While demand is increasing, the supply of newly prepared teachers is also beginning to increase once again, after a dramatic decline from the early 1970s through the mid-1980s. Between 1972 and 1987, the number of bachelor's degrees conferred in education plummeted by well over 50 percent, from 194,229 to 87,083 (American Council on Education [ACE], 1989; NCES, 1989). The declines were most pronounced for candidates of color, plummeting by over 40 percent for Hispanic and Native American candidates between 1975 and 1987, and by two-thirds for African-American candidates (ACE, 1989; NCES, 1989). By 1987, only 8,019 candidates of color received bachelor's degrees in education, representing 9 percent of all education degrees, a substantial drop from the 13 percent of a much larger number of degrees that had been awarded to people of color ten years earlier (ACE, 1989).

The decrease in education degrees earned by women between 1975 and 1985 (from 30 to 13 percent of all female college students) was matched by an increase in degrees in business (from 5 to 20 percent of women college graduates) and other professional fields, such as the sciences, along with preprofessional programs for fields such as law and medicine at the undergraduate level (Center for Education Statistics, 1986). Many of the same factors influenced enrollments of students of color: Greater enrollment in fields like business and preprofessional fields drew students away from majors in education. As with women generally, these shifts were most pronounced for African-American and Hispanic women.

Since the late 1980s, however, the total number of bachelor's degrees in education has increased, reaching 111,000 in 1990–1991 (NCES, 1993e). This represents about three-fourths of all newly trained teachers each year. The remainder receive degrees in their disciplines with a minor in education or receive master's degrees. In 1991, about 9 percent of entering teachers had earned a master's degree, nearly double the proportion since 1980 (Gray et al., 1993; NCES, 1993a). This increase is probably due to the recent introduction of policies in some states that now require master's degrees for teachers as a condition of a full regular license and to the many mid-career entrants who already have bachelor's degrees and are attracted by master's level teacher preparation programs (Darling-Hammond, Hudson, & Kirby, 1989).

At current rates of increase, we might optimistically expect that the total number of new teachers who are prepared in current programs could grow to about 150,000 annually over the next five years. This compares with an estimated demand for newly hired teachers of nearly 250,000 annually. Obviously, teaching vacancies are being and will continue to be filled from other sources, including the reserve pool of teachers (those who previously taught and left temporarily or who prepared to teach but did not enter immediately after graduation). In recent years, a growing number of individuals have entered teaching without preparation for their jobs. In the future, a wide range of policy choices yet unmade will determine the extent and sources of teacher supply.

In 1991, the total number of "newly qualified teachers" (who prepared to teach, were licensed, or had taught within a year of their graduation) was 140,000; of these 121,000 were eligible or licensed for teaching, while 19,000 taught without credentials. Not surprisingly, those who were hired without a license were concentrated in shortage fields. One third or more of all new teachers assigned to teach mathematics, science, social studies, physical education, and special education were neither licensed nor eligible for licensure in those fields (Gray et al., 1993).

As compared with other newly qualified teachers who received bachelor's degrees, those having taught without a license were younger, and they exhibited lower levels of academic achievement: Most (57 percent) had grade point averages (GPA) *below* 3.25 (and 20 percent had grade point averages below 2.25). In contrast, most of those prepared for teaching (51 percent) had grade point averages *above* 3.25.

Ironically, while shortages lead to the hiring of unqualified entrants, a great many newly qualified teachers do not immediately enter the profession after they complete their preparation. Of those who prepare to teach, only about 60–70 percent actually enter teaching the year after their graduation, and the proportion is even lower for candidates of color (NCES, 1993a; Darling-Hammond, 1990a; Haggstrom, Darling-Hammond, & Grissmer, 1988). In 1985, about 74 percent of those newly qualified to teach applied for teaching jobs, and just under 50 percent ended up teaching full-time. Only 38 percent of the newly qualified candidates of color entered teaching full-time. Continuing the trend, only 76 percent of newly qualified teachers in 1990 applied for teaching jobs and only 58 percent were employed as teachers in 1991 (NCES, 1993a; Gray et al., 1993).

Those who prepare to teach but never enter the field do so for a number of reasons. Many have trouble finding employment in areas where they live and want to work. Although most jobs for new teachers are in less affluent central cities, most teacher education students want to teach in suburban schools that tend to have lower turnover and hire experienced teachers rather than new teachers. Others take time off to do something else (graduate school, travel, or homemaking) before entering the field. Some of these individuals enter teaching later. Still others prepare to teach as a kind of insurance, while pursuing other possible career opportunities. Some teachers decide not to enter the profession when they encounter difficulties in the cumbersome, inefficient hiring processes that characterize many large districts, when they experience unprofessional hiring procedures, or when they find that their license is not valid in a state to which they have moved after college (Wise, Darling-Hammond, & Berry, 1987).

Reasons for the undersupply of teachers in certain locations and teaching fields include salaries lower than those earned by similarly educated professionals, a flat career structure, few opportunities for advancement, and relatively poor working conditions (Darling-Hammond, 1990b). These problems are more severe in low-wealth districts, where shortages are also more severe.

Maintaining an adequate supply of well-prepared recruits is even harder during times of substantial new hiring. With heightened demand and greater hiring of new teachers, annual attrition rates can be expected to increase, since new teachers leave at much greater rates than mid-career teachers (Grissmer & Kirby, 1987; Haggstrom, Darling-Hammond, & Grissmer, 1988). In teaching, as in other professions, attrition follows a U-shaped curve, with high attrition in the early years, very low attrition during mid-career (15–20 years), and an increasing attrition rate during retirement eligibility. Highest attrition rates are among beginning teachers, those typically having three or fewer years of experience, particularly those who do not receive any mentoring or support during their first years of teaching. Typically, 30–50 percent of beginning teachers leave teaching within the first five years (Darling-Hammond, 1990a; Grissmer & Kirby, 1987). Teachers in urban areas and in shortage fields, such as the physical sciences, tend to leave more quickly and at higher rates (Grissmer & Kirby, 1987; Murnane & Olsen, 1988).

Some states have addressed shortages by increasing salaries and providing scholarships for prospective teachers. Some states provide forgivable student loans (the repayment of these loans are prorated against requirements for service) for those completing a minimum number of years of service in teaching, particularly in high-need urban or rural areas. Incentives directed at critical-need areas, such as mathematics or science, are popular in many states. Presently, about 25 percent of all teacher education programs have some kind of scholarship or loan program to recruit high academic achievers (Holmstrom, 1985).

States also influence the labor market by establishing requirements for licensure, establishing substandard and/or temporary credentials, and/or lowering or raising cut-off scores on tests for licensure. These actions make it more or less difficult to secure a job as a teacher (Cobb, 1993; Coley & Goetz, 1990; Darling-Hammond & Berry, 1988). In 1983, 46 of the 50 states allowed substandard, limited, or emergency licensure. Twenty of these states granted licensure to teach to individuals without a bachelor's degree. In 1990–1991, 15 percent of newly hired teachers were not licensed[4] to teach and another 12 percent held substandard licenses (temporary, provisional, or emergency) (National Data Resource Center [NDRC], 1993).

At the local level, teacher shortages are addressed by assigning teachers to work outside their field of licensure, by hiring untrained teachers or substitutes, by canceling courses, or by increasing class sizes (Haggstrom, Darling-Hammond, & Grissmer, 1988). Overall, about 16 percent of all teachers teach some classes outside their field of licensure, and 9 percent spend most of their time teaching in an area outside of their field of preparation. At the secondary level, 17 percent have less than a college minor in the field they most frequently teach (NEA, 1981; 1987).

CHARACTERISTICS AND GOVERNANCE OF TEACHER EDUCATION PROGRAMS

Characteristics of Institutions

Teacher education in the United States takes place in a wide range of higher education institutions. Among the 1,978 four-year colleges and universities in the United States, approximately 1,279 have schools, colleges, or departments of education (SCDEs) engaged in teacher education (National Council for Accreditation of Teacher Education [NCATE], 1993; Sykes, 1985). These include large public institutions, private independent and religiously affiliated liberal arts colleges, and private universities. The greatest number of SCDEs are in the central region of the country, with the fewest located in the western region.

The majority (approximately 65 percent) of higher education institutions having teacher education programs are private, but these produce only 25 percent of the new teachers. About one-third of all teacher-preparing institutions, most in large public universities, actually produce 75 percent of all teachers. Many of these colleges began as state normal schools for teachers, and they continue to emphasize the preparation of teachers in their current broader role as liberal arts colleges. Some prepare as many as 1,000 teachers annually. Overall, teacher candidates comprise about 10 percent of total college and university enrollments and about 13 percent of undergraduate enrollments (American Association of Colleges for Teacher Education [AACTE], 1987).

The number of programs offered by any single SCDE varies widely. On average, a single SCDE offers 8–12 distinct teacher education programs for different teaching fields (e.g. mathematics education, elementary education, special education, etc.). In 1987, about one-third of undergraduate SCDE students were enrolled in elementary education programs. Approximately 18 percent were enrolled in secondary education programs (about evenly divided among mathematics, English, social studies, and science candidates), 12 percent in special education, and 7 percent in early childhood education. Specialty areas such as physical education, reading, bilingual education, and so on, comprised about 28 percent (AACTE, 1987).

While national estimates of teacher education expenditures are not available, the relative claim on higher education dollars made by teacher education is clearly small relative to other fields. In comparison with other university departments and programs, teacher education programs bring in substantially more resources than they expend for services to their students (Sykes, 1985). One recent analysis of expenditures at six research universities found that schools of education are generally the lowest funded unit within the university and have lost ground over the last decade (Ebmeier, Twombly, & Teeter, 1990). On one common state index for allocating funds based on the relative cost of training in professional fields, education ranks lowest, with an index of 1.04, in comparison with engineering at 2.07 and nursing at 2.74 (Sykes, 1985). Support for teacher candidates in the way of state or federal tuition support, or stipends, is limited.

Policy Guidance

Teacher preparation programs are governed by decisions made within their institutions (at the institutional level as well as within the SCDE), by state requirements for program approval, and—for the 40 percent of programs that are professionally accredited—by the standards of the national accrediting agency, the National Council for Accreditation of Teacher Education (NCATE). NCATE is a private, nongovernment association representing teacher educators, teachers, state policy makers, and professional specialty groups (see "Accreditation/Approval" section below for additional information). Currently, about 27 states have partnership agreements with NCATE. These partnership agreements provide for joint program review and may enable NCATE institutions to meet state program approval standards by addressing NCATE standards.

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[4] The term *certification* is generally used by states to describe their system for ensuring minimal qualifications of candidates allowed to practice. However, licensing is the more accurate term, analogous to this function performed by states for other occupations. Licensure means a candidate has legal authority to practice, validated by a governmental body. Certification is the recognition by the profession of a higher level of competence and attainment. Certification carries professional rather than legal authority. Professional certification is just beginning to become available to U.S. teachers, through the auspices of the National Board for Professional Teaching Standards (NBPTS). The NBPTS is discussed in greater detail in the "Policy Issues and Trends" section.

Programs are also indirectly guided by the state's licensing requirements for teachers, as these often describe the kinds of courses candidates must complete in order to receive a license. Program-approval guidelines and licensing requirements vary from state to state. Generally, these are set by the state department of education. Recently, however, 12 states have established professional standards boards for teaching like those that exist in other professions. In these states, the teachers, other educators, and public members who sit on the standards board have assumed responsibility for setting standards for teacher education program approval and licensing.

State legislatures and state boards of education also sometimes exert authority over schools of education—much more than any other schools or departments within universities. Because of the special state interest in education, legislatures have sometimes been active in mandating admissions and graduation requirements for schools of education, testing requirements, and even specific course requirements. Legislatures have also been the source of many alternative licensing programs.

Accreditation or Approval of Teacher Preparation Programs

Within teacher education, there is a dual-track system for reviewing preparation programs for teachers: *state program approval* and *professional accreditation*.

In state program approval, states have typically approved teacher education programs based on the program's abilities to prepare candidates to meet state licensing requirements. Until recently, most states licensed teachers by requiring them to complete an approved program of teacher education. State program approval is typically coordinated by the state's department of education, under the auspices of a state board of education or a professional teaching standards board. The approval process has traditionally assessed "the types of learning situations to which an individual is exposed and … the time spent in these situations rather than … what the individual actually learned" (Goertz, Ekstorm, & Coley, 1984).

Unhappiness with the results of this approach led to the enactment of tests for teacher licensing in most states during the 1980s, providing an additional check on the process. Now states are looking at a variety of new approaches to licensing and program approval, including performance-based approaches that would rely more heavily on assessments of teacher knowledge and skill conducted during and after teacher education and induction. Testing for licensure is discussed in greater detail in the section on licensure below.

Accreditation is the assessment of an institution or a program by voluntary, nongovernment associations of educational institutions, professional practitioners, and professional educators, according to established standards. In the United States, there are two kinds of accreditation: *regional* or *institutional* accreditation and *professional* or *specialized* accreditation. Whereas regional or institutional accreditation assesses the adequacy of the mission, goals, and resources of an institution as a degree-granting entity, professional or specialized accreditation assesses a particular program against national standards established within the field (Cobb, 1993).

NCATE is the only accrediting agency recognized by the U. S. Department of Education for the accreditation of teacher education. In most states, accreditation is voluntary, and NCATE presently accredits 521, or 40.7 percent of the 1,279 higher education institutions having teacher education programs (NCATE, 1993). However, NCATE-accredited programs produce approximately 80 percent of the nation's teachers. These programs are largely undergraduate programs in state colleges and universities. In contrast with teaching, where accreditation is voluntary, most other professions require graduation from an accredited professional program as a prerequisite for licensure. In the cases where this is not required, candidates graduating from nonaccredited programs may experience some differentiation in status and compensation, and/or restrictions in the authorization to practice.

NCATE's process of accreditation occurs in three stages. First, institutional eligibility is established if the professional education unit meets eight conditions that define it as a professional preparation program. Second, the program completes a self-study and develops an institutional report, which includes a review of program content areas, a discussion of programs and the knowledge base undergirding instruction, and the compilation of institutional and unit data. Finally, a team of professional colleagues, representing teacher educators, practicing teachers, and members of the public, conducts a visit on-site to verify the institutional report against the NCATE standards of professional practice, and issues a report of their findings. The Unit Accreditation Board of NCATE makes the final decision on accreditation using the information obtained from the program's institutional report and the team's on-site report. Accreditation is conducted on a five-year cycle.

Other professional associations representing teachers of different subject areas (such as the National Council of Teachers of Mathematics) and groups of students (such as the National Association for the Education of Young Children) also influence standards for teacher education through standards that they establish within their organizations. Twenty-one specialty organizations are active members in NCATE. These associations have defined the knowledge base in their content area for what teachers need to know and be able to do. As a part of the NCATE process, teacher education program content areas are reviewed against these standards as one of the prerequisites for accreditation review. Many states also use professional association standards as guides when establishing licensing requirements.

NATURE AND CONTENT OF TEACHER PREPARATION

Goals of Teacher Education

A single version of the aims of teacher education is impossible to convey for the United States, given the diversity of practice at the state and local institutional levels. Presently, no single agency represents or enforces claims of the profession regarding knowledge and standards of practice. States' numerous licensing standards differ from one another and do not convey a clear, coherent vision of teaching and learning. The American Association of Colleges for Teacher Education (AACTE), a voluntary national nongovernment agency with 715 member institutions involved in preparing educators, helps to formulate and promote the development of a knowledge base for teacher education. NCATE provides further guidance by requiring institutions to identify and define the knowledge base that undergirds their coursework and clinical preparation, but it has not identified a specific conception of the knowledge base to be used. Finally, professional specialty associations provide an additional source of guidance regarding what teachers are expected to know and be able to do in specific content areas. However, these associations are private, nongovernment bodies whose visions of teaching and learning do not always concur with those embodied in state requirements.

There are a number of important professional and policy efforts presently taking place to identify a common core of understandings and capacities that characterize what all teachers need to know and be able to do to address the needs of all children. A number of professional associations have initiatives that focus on defining the common core of knowledge for teachers. The National Board for Professional Teaching Standards (NBPTS) has developed standards and assessments for certifying accomplished practice. A companion effort by a group of more than 30 states is creating board-compatible licensing standards through the Interstate New Teacher Assessment and Support Consortium (INTASC). Revisions of NCATE standards are, in turn, incorporating the INTASC standards. All of these groups have recently articulated a view of teaching knowledge, skills, and dispositions that emphasizes:

- Teachers' moral and professional commitment to students, grounded in an understanding of learners, a commitment to equity, and a pledge to continually seek strategies that will produce success for each learner
- Teachers' understanding of subjects in ways that allow them to make core concepts and modes of inquiry accessible to diverse learners
- Teachers' understanding of learners and learning in ways that allow them to identify different strengths, intelligences, and approaches to learning, as well as to facilitate development of the whole child
- Teachers' active involvement in assessing and supporting student learning by evaluating student thinking and performance and adapting teaching to students' prior knowledge, interests, motivations, and learning
- Teachers' capacities to reflect on their teaching and its consequences for learners, to revise their strategies as needed, and to collaborate with others in creating conditions that support school improvement as well as individual student success

Despite this emerging rhetorical consensus among professional associations, there is less commonality in actual practice. This is because government policy tools, such as curriculum mandates and teacher evaluation requirements, often conflict with these conceptions of teaching, and because substantial unevenness in program quality results from unequal funding and lack of universal quality controls.

Academic Preparation Prior to Teacher Education

Virtually all candidates for teacher education have completed secondary education and most candidates have completed at least one or two years of general studies in college before they enter the teacher education portion of their coursework. Some enter programs after already having acquired a bachelor's degree.

Admissions requirements to teacher preparation programs are varied. Institutions traditionally set their own requirements in terms of grade point averages, interviews, and other application materials (essays, evidence of work with children, etc.); however, states have recently begun to set minimum admissions standards. At least 22 states now require some form of testing for entry into teacher education and 15 states have set minimum grade point averages for entry. Fifteen states require both tests and minimum GPAs (Coley & Goertz, 1990). At their own initiative or due to state mandate, at least 70 percent of teacher education programs now have minimum grade requirements that must be met before a student is admitted. Half also require that students pass a proficiency test before completing the program, a number that has doubled since 1980 (Holmstrom, 1985).

There is no established number of entrants per year determined by the government. Program size has tended to increase or decrease with the number of interested candidates who can meet the minimum entry requirements. "Traditionally, the number of participants in a teacher preparation program is driven by the size of the applicant pool" (Miller & Silvernail, 1994, p. 37). Because many preservice programs provide a source of revenue to the university as a whole, some institutions are reluctant to limit enrollment. As a consequence, the number of applicants admitted to a program is often based on economic considerations rather than quality standards, such as faculty/student ratios or the number of high-quality field placements. There can be substantial fluctuations in the number of individuals preparing to teach from year to year.

The Preservice Teacher Preparation Curriculum

Professional preparation generally takes place as part of a four-year program leading to the baccalaureate degree. Increasingly, however, programs are extending into a fifth year, either as an extension of an undergraduate program or as a separate master's degree program following completion of a discipline-based bachelor's degree.

Teacher preparation has three principal components. First, most coursework during the four or five years is in the liberal arts, with a major emphasis for secondary teachers on a single content area in which the candidate will be licensed, such as history, mathematics, or biology. Most elementary teachers have traditionally majored in elementary education, but increasingly they attain a major in one of the liberal arts disciplines or a field like psychology or human development.

Second, the remaining coursework is in the study of education as a field of inquiry, including teaching methods. Typically these courses include an introduction to education, educational psychology, general or specific methods courses, and, at least for elementary teacher candidates, child development. What was once a standard requirement for all teacher education students, a course in educational history and philosophy, is now taken by very few (Goodlad, 1990). Education courses typically constitute only about one-fifth of the total program for secondary education majors (an average of 26 credit hours out of a total of 135), while candidates in elementary education usually complete more education courses (an average of 50 credit hours out of a total of 125).

Finally, there is a variety of field experiences for candidates. Candidates in most teacher education programs (about 86 percent) are required to undertake some field experiences prior to student teaching. Often during the initial phases of the program, students spend one or two days per week observing or tutoring in schools. In over two-thirds of the teacher education programs, field experiences are also required in one or more methods courses later in the program's sequence. Such experiences allow candidates to apply what they are learning through classroom observations and work with students before entering an intensive student teaching experience (AACTE, 1987).

Building on these field experiences, all candidates are involved in practice teaching (also called student teaching), which takes place near the completion of a preparation program and occurs in elementary and secondary schools under the supervision of a cooperating teacher. Typically, student teaching has occupied an average of 350 hours during one full 15-week semester of the higher education institution, which is slightly less than a full school semester in an elementary or secondary school, due to differences in academic calendars (AACTE, 1987). Increasingly, however, student teaching is based on a school semester rather than on a college or university semester, and the duration of student teaching is increasing. At some institutions, and in many master's degree programs, student teaching is a full two semesters, integrated with seminars and coursework.

Sometimes student teaching engages students in two different placements, so that they can experience varied classrooms. Typically, candidates in student teaching experiences are supervised by faculty from the SCDEs as well as by their "cooperating teacher" in the school in which they are placed. College supervisors are typically doctoral students who have had teaching experience and supervisory training, teacher education faculty, or other SCDE staff. College supervisors average six or seven visits to a student teacher per semester (AACTE, 1987).

Given that the college supervisor spends a limited amount of time with the student during the student teaching experience, the cooperating teacher is very influential in the student's practical or clinical experience. This influence often proves to be differentially beneficial depending on the skills and abilities of the cooperating teacher. Programs do not always hand-pick the teachers they will work with. Principals may choose cooperating teachers "based on administrative convenience rather than educational value" or based on those who volunteer (Darling-Hammond & Goodwin, 1993). Cooperating teachers may receive little or no training for their roles and few rewards. They sometimes have little contact with the preparation program directly.

There are several junctures at which "loose linkages" can occur among the three components of teacher preparation programs—liberal arts education, professional study, and practical experiences (Goodlad, 1990; Goodlad, Soder, & Sirotnik, 1990; Schwartz, 1988; Zeichner, 1986). The fact that colleges have traditionally exerted little influence on the nature or quality of the practicum or student teaching placements is but one example of this fragmentation. Other disjunctures can reduce the connections made between subject-matter content, educational theory, and practical application. Such lack of connections may reinforce teachers' conceptions that content and theory have little utility in the "real world" of the classroom.

To encourage greater continuity between theory and practice, a number of institutions have begun to create *professional development schools (PDS)* in close collaboration with nearby school districts. These are partnerships between schools of education and local schools in which the school becomes a site for the clinical preparation of cohorts of prospective teachers. The PDS models state-of-the-art practice, involves school and university-based faculty in developing a program of learning for beginning teachers, and frequently also provides a site for developing collegial research on teaching (Darling-Hammond, 1994a). Based on surveys of teacher preparation institutions, by 1994 more than 200 professional development schools had been started across the U.S. (Abdal-Haqq, 1992; Darling-Hammond, 1994a).

Most faculty (70 percent) and students (69.7 percent) view their preservice programs as good or outstanding in preparing graduates as entry-level teachers (AACTE, 1988). The majority of the remaining faculty and students assess their preparation as adequate. One area, however, stands out as in need of more attention than others. When asked whether teacher education graduates were prepared to teach in culturally diverse settings or to teach academically "at-risk" students, a substantial minority of faculty (29.7 percent) and students (28.6 percent) indicate that graduates are "less-than-adequately" prepared (AACTE, 1988). While a similar percentage of each group reported that they were very well prepared or adequately prepared, this is clearly an area where changes in the conditions of schooling and in the expectations of teachers are propelling greater changes in schools of education as well.

Differences in Teacher Preparation Programs

Because no universal standards for either licensing or accreditation are enforced, a wide range of teacher preparation programs exists. Most of the reform efforts aimed at teacher preparation in the last decade focus on structural differences. These structural differences include adding a fifth year, increasing (or, in a few states, limiting) the number of credit hours in professional education, increasing the amount of field-based experience, and creating alternative routes to teaching (Feiman-Nemser, 1990).

A five-year or fifth-year program involves completing teacher preparation in a five-year extended bachelor's program or a fifth-year master's degree program following undergraduate school. A five-year program is considered to provide greater flexibility for the integration of theory and practice because the extended time allows greater opportunity for an in-depth, supervised internship connected to coursework. Though many of the reform reports of the last decade have advocated this change in teacher preparation, four-year baccalaureate programs still predominate (Wong & Osguthorpe, 1993).

Preparation programs differ in other ways due to different conceptual orientations and different levels of quality. In some, students learn a great deal about learning and child development; in others they do not. In some, a subject-specific view of pedagogy is emphasized; in others, generic approaches to pedagogy are taught. In some, teachers learn about curriculum development and student assessment; in most others, they do not.

These differences are attributable to several different causes. State regulations governing licensing and program approval are one source of variation. For example, when legislative edicts in New Jersey, Texas, and Virginia reduced the amount of professional education coursework undergraduates could take to no more than 18 credits, most programs had to eliminate or greatly reduce coursework in learning and child development, and focus on generic rather than subject-specific approaches to pedagogy.

On the other hand, a number of states, such as New York, Connecticut, and Arizona, require at least a master's degree on top of a strong subject-matter degree for full professional licensure; these requirements generally incorporate 40 credits of professional education coursework and a lengthy supervised practicum or internship, in addition to subject-matter preparation. Thus, the meaning of a teaching license, in terms of knowledge and skills represented, varies tremendously from state to state (Darling-Hammond, 1992).

Similarly, although teachers are increasingly expected to major in a discipline while also preparing to teach, this also varies according to state licensing and program approval requirements. By 1991, for example, about 63 percent of mathematics teachers had majored in their field. However, this ranged from 25 percent in Alaska to 87 percent in Maryland. The proportion of science teachers who had majored in their field increased from 64 percent in 1988 to 70 percent in 1991, ranging from 41 percent in New Mexico to 85 percent in Connecticut (Blank & Gruebel, 1993).

Because professional accreditation is not universal, a great many programs operate without the core set of standards that guide those that are accredited. Additional sources of variation in program content include the conceptions of teaching and teacher knowledge underlying state program approval guidelines and assessments of beginning teachers (Darling-Hammond with Sclan, 1992), variations due to the recent proliferation of state-approved "alternate routes" to licensure, and variations due to the view of teaching adopted by individual institutions.

Links Between Teacher Education Curricula and Student Standards

In most states, higher education and K–12 education are regulated by separate state boards, and, in some cases, they are administered by separate state agencies. As a consequence, there is usually little articulation between the standards that govern teacher education and licensure and state curriculum standards for elementary and secondary school students. In some cases, standards for teachers and those for school students may even be in conflict with each other. Some states, such as Maine, Minnesota, and Vermont, have identified expectations for elementary and secondary students, and have then translated these into expectations for what teachers need to know and be able to do to help school students achieve those expectations. Performance-based standards for both students and teachers are the result of such efforts.

National voluntary standards-setting efforts by professional associations do not have the force of law, but are becoming more prominent in the discourse about education. In fields ranging from mathematics and English language arts to science, social studies, and the arts, standards for curriculum, evaluation, and teaching are being developed by practitioners, content specialists, and scholars from schools, universities, and professional associations. These are intended to reflect high expectations that all students can meet rigorous learning standards. Some argue that these standards could also serve as a foundation for considering what all teachers and teacher education programs should do to guide that learning.

Professional teaching associations that are developing standards for students, such as the National Council of Teachers of Mathematics and the National Council of Teachers of English, also influence national professional accreditation for teacher education because they also serve as the subject-matter representatives in assessing content areas in the NCATE process. Student standards developed by professional organizations are also taken into account in the development of standards for advanced teacher certification through the National Board for Professional Teaching Standards and the associated state licensing standards development efforts of INTASC. (These are discussed more fully in the "Policy Initiatives" section, below.)

LICENSING REQUIREMENTS

Initial Licensing

Each of the 50 states currently has its own standards for licensure, which organize the labor market for the teaching profession to a great extent (Sykes, 1989). First, licensing requirements constrain the supply of professionals in a given field by establishing minimum qualifications for entry. Second, licensing determines the link between qualifications and assignment. Unless there are no qualified candidates available, teachers are supposed to be assigned to the field within which they have a license. Finally, because licensing defines the courses and tests teachers must take to gain entry, it defines one aspect of the knowledge that guides practice.

There are a great many licensing fields. States grant licenses in over 50 fields, defined by subject area and level of schooling (e.g., secondary English, mathematics, biology, elementary education, special education for handicapped students, bilingual education) and other functions such as educational administration and educational support personnel, such as teachers' aides. Typically, local educational agencies recruit and hire all education personnel.

During the 1980s, most states adopted changes in specific teacher licensing requirements that affected the content of teacher education in one way or another. In addition to requiring testing as a condition of licensure, the most notable changes by a number of states include increases in required hours of college credit in a subject area for secondary teachers, evaluation of classroom performance for beginning teachers in their first year of practice, and continuing education requirements for relicensure.

While most states increased the amount of coursework teachers would need to undertake to learn about teaching, a few actually reduced the amount of professional education coursework undergraduates could take, leaving them with little preparation in child development or pedagogy before they are licensed. State requirements now vary so substantially that a teacher licensed in one state frequently does not meet the licensing requirements in another and is required to take additional coursework or meet other state-specific requirements on moving from one state to another.

In addition, requirements for teaching in private schools sometimes differ from those in public schools. Most states (about 30) require teachers in private schools to be licensed; however, others do not. In 1991, about 60 percent of private school teachers held regular or advanced teaching licenses; another 20 percent held the provisional licenses that beginning teachers hold until they have successfully completed an induction program and/or final assessment for licensing (NCES, 1993a).

Most states (47) now require some form of testing for licensure. Of these states, 26 test for basic skills competency; 17 test for general knowledge; 27 test for professional knowledge; and 23 test for subject area content knowledge (Coley & Goertz, 1990). In contrast with licensing tests in most other professions, which are developed and administered by members of the profession, tests for teachers are developed by commercial vendors or state agencies. About half of these states use all or parts of tests put out by commercial vendors, for example, the National Teacher Examinations (NTE) developed and administered by the Educational Testing Service (ETS). The other half use tests developed and administered by the state itself.

Many critics have charged that teacher licensing tests have tapped very little of what might be called a knowledge base for teaching (Darling-Hammond, 1986; MacMillan & Pendlebury, 1985; Shulman, 1987). Consequently, efforts are under way in many states to develop new approaches to assessing teachers. In response to concerns that the previous generation of teacher tests, based largely on multiple-choice responses to brief, simplified questions, failed to measure teaching knowledge and skill, test developers have also been redesigning their assessments. For example, ETS has recently replaced the NTE with a new testing series that aims for more performance-based assessments of teaching knowledge. More items in the paper-and-pencil component require essay responses by teachers, and a classroom observational instrument has been added. Other changes are occurring in state-developed teacher assessments.

The National Board for Professional Teaching Standards (NBPTS) has gone many steps further in its new examinations for the advanced certification of highly accomplished veteran teachers. For NBPTS certification, the assessment is entirely performance-based, using an extensive portfolio assessment completed over several months of classroom work augmented by complex performance tasks completed in an assessment center. States in the Interstate New Teachers Assessment and Support Consortium are developing licensing standards and assessments for beginning teachers that are compatible with those developed by NBPTS. Together, these standards establish a continuum of what teachers need to know and be able to do, from entry into teaching through the development of highly accomplished practice.

Continuing Requirements for Licensure

Generally, the first three years of work are considered provisional or nontenured employment. Teachers are usually evaluated annually, most often by the principal, using a checklist type of instrument. In the first year of teaching, a growing number of states are requiring a state-mandated process for evaluation that precedes the issuance of a continuing state license. Thereafter, evaluation is the province of the local school district, and procedures vary widely. Most teachers receive a successful evaluation and are tenured at the end of this time period. Once teachers are tenured staff, termination of employment is considerably more difficult.

Until recently, most states had few, if any, requirements for teachers to satisfy after they were initially licensed. However, states increasingly are disallowing the "lifetime" license and are requiring teachers to continuously renew their credentials with additional formal college coursework or in-service training. At least 32 states now have requirements for licensure renewal. On average, licensure renewal takes place every three to five years. Professional development activities used to satisfy licensure renewal typically include additional coursework and attendance at professional conferences or workshops. Some states are considering giving credit for teacher leadership activities and mentoring of beginning teachers.

Over the last few years, the trend has been to enact more restrictive relicensing standards. In the past, many states have not specified the quality or nature of the additional courses required. More states are now requiring teachers to successfully complete courses in content or pedagogical areas applicable to their teaching. Additionally, many local school districts have requirements for the continuing education of teachers through school- or district-sponsored professional development programs, courses, self-directed study, or some combination of these activities.

Conditions Under Which Requirements for Licensure Are Waived or Altered

Traditionally, whenever shortages of teachers have occurred, states would issue emergency or temporary licenses to underprepared candidates to fill vacancies. This occurred in a large-scale fashion during the 1920s, the 1950s and 1960s, and the late 1980s. Estimates suggest that over 50,000 candidates a year are now entering teaching without full preparation for the fields they are teaching (Feistritzer, 1988; NDRC, 1993). These teachers teach primarily in central cities and poor, rural areas and are typically assigned to schools serving low-income students and students of color, where teacher shortages are more prevalent.

During the 1980s, while there were efforts to raise salaries and standards to increase the quality of the teaching force, states also loosened standards to address shortages in the supply of teachers. In addition to allowing emergency licenses, more than one-half of the states (39 as of 1991) implemented alternative routes to licensure. Some states' alternative routes are restricted to areas of teacher shortages or to specific geographic areas; others are not. Many programs target inner-city or rural school districts with serious shortages (Darling-Hammond, 1992).

Most alternate routes to licensure are aimed at recruiting candidates with bachelor's degrees in other fields. These programs range from one- or two-year master's degree programs, structured to enable entry for mid-career changers, to short summer courses prior to hiring.

High-quality alternate routes that do not lower standards for entry to teaching but provide intensive, targeted preparation and supervision in a master's degree program have proven reasonably successful at recruiting and preparing mid-career recruits and other nontraditional entrants to teaching (Coley & Thorpe, 1985; Darling-Hammond, Hudson, & Kirby, 1989).

However, the short-term alternate routes have proven less successful at preparing candidates well or retaining them in teaching. Unlike traditional entrants of teacher education programs, candidates in the shorter-term routes take little education coursework or student teaching prior to entering; they assume full-time teaching responsibilities following a brief orientation seminar, usually six to eight weeks. These candidates are supposed to receive on-the-job supervision while taking the education courses that are required; however, this supervision often does not materialize (Darling-Hammond, 1992).

Research indicates that candidates having gone through full preparation programs are more highly rated and more successful with students than are teachers without full preparation (Ashton & Crocker, 1987; Evertson, Hawley & Zlotnik, 1985; Greenberg, 1983; Haberman, 1984; Olsen, 1985; for a review, see Darling-Hammond, 1992). Studies of teachers admitted through emergency licensing and quick-entry alternate routes frequently note that the candidates have difficulty with curriculum development, pedagogical content knowledge, attending to students' differing learning styles and levels, classroom management, and student motivation (Feiman-Nemser & Parker, 1990; Grossman, 1988; Lenk, 1989; Mitchell, 1987).

In comparison with beginners who have completed a teacher education program, those novices who enter without full preparation show more ignorance about student needs and differences and about the basics of teaching, are less sensitive to students, less able to plan and redirect instruction to meet students' needs (and less aware of the need to do so), and less skilled in implementing instruction (Bents & Bents, 1990; Bledsoe, Cox, & Burnham, 1967; Copley, 1974; Darling-Hammond, 1994b; Gomez & Grobe, 1990; Grossman, 1988; Rottenberg & Berliner, 1990). They are less able to anticipate students' knowledge and potential difficulties and less likely to see it as their job to do so, often blaming the students if their teaching is not successful.

ON-THE-JOB TRAINING AND DEVELOPMENT

Induction Programs

Teacher induction programs for new and beginning teachers were launched in at least 25 states during the 1980s (Darling-Hammond, 1990b). In many cases, these programs were introduced to provide for a state-required, on-the-job evaluation as a condition for a continuing license. In others, mentor teachers assist the beginning teachers, but evaluation is not directly linked to the mentoring process.

In the beginning, in teacher evaluation programs launched by a number of states, teachers receive provisional licenses, usually valid for up to three years, on completion of a teacher preparation program and other state requirements. While employed as full-time teachers, they are evaluated formally on their teaching performance in order to receive a regular or continuing license. The performance assessments are conducted through a state-established system. Evaluators may include a teacher, a principal, and district or state personnel. Typically, the beginning teacher is observed and evaluated two or three times throughout the year, using a state-developed instrument that covers classroom management, interpersonal skills, teaching methods, and so on.

Evaluators can recommend that the teacher receive a regular license, be removed, or be asked to participate in an in-service training or development program and then reevaluated (Coley & Goertz, 1990). These programs are largely state-funded, with some local support; however, mentoring is rarely funded or provided. Because many of these programs have emphasized evaluation rather than support, they have often provided too little assistance to beginning teachers and have not helped them improve their capacity to address problems of practice (Borko, 1986; Fox & Singletary, 1986; Huling-Austin & Murphy, 1987).

Other models of support for beginning teachers are emerging. States like New York, California, and Minnesota have funded mentors for beginning teachers to provide ongoing support for developing competence. While there is currently no defined period of induction or transition following initial licensure, and no commonly accepted model, the availability of induction programs is increasing. A 1991 survey found that 48 percent of teachers with three or fewer years of experience reported that they had participated in some kind of formal induction program during their first year of teaching (NCES, 1993b,c).

Ongoing Professional Development

There are at least five different approaches to professional development that function across various school settings: ***individually guided professional development, observation/assessment, development/improvement processes, training***, and ***inquiry*** (Sparks & Loucks-Horsley, 1990). Traditionally, professional development activities for teachers have aimed to improve "job-related knowledge, skills, or attitudes" (Sparks & Loucks-Horsley, 1990, p. 234), and they serve mainly as a "vehicle of organizational maintenance" (Little, 1993, p. 146).

Training is the most widely used form of professional development. Districts and schools establish objectives based on district or school goals. A deficit perspective frames many training activities, focusing on what knowledge and skills teachers are lacking. Much district-based training is general in nature and is delivered en masse to large groups of teachers on a specific day set aside for the purpose.

The typical format for training is a workshop session presented by an "expert" who sets the content and course of activities. Districts may offer a series of workshops annually from which teachers may choose. Frequently, little or no follow-up and support are provided to enable teachers to practice or incorporate the knowledge and/or skills presented in the workshop into their particular classroom setting. A training model of professional development is often fragmented, relying on a collection of workshops and/or course offerings, as opposed to a continuous and ongoing program of professional development for teachers (Miller, Lord, & Dorney, 1994).

Recent critics of traditional staff development strategies have argued that, frequently, the implementation of district policies takes precedence over teacher learning guided by investigations into concrete problems of practice (Miller, Lord, & Dorney, 1994). Such staff development does not address teachers' various expertise and contexts, or encourage diverse areas of professional inquiry.

Individually guided professional development emphasizes learning that is designed by the teacher. The premise here is that individuals can best judge their learning needs and are capable of self-directed and self-initiated learning. Many districts offer courses from which teachers can choose, or reimburse teachers for college courses they take. Often teachers receive credit on the salary scale for courses they take. Teachers typically choose these courses based on their own sense of what will benefit them and their teaching.

Observation/assessment models of professional development include such forms as clinical supervision, peer coaching, and teacher evaluation. In most districts, relatively little time and attention are devoted to teacher evaluation or supervision. Virtually all of the responsibility resides with school principals, who may have supervisory responsibility for 100 or more teachers and inadequate time, expertise, or resources for the task (Wise, Darling-Hammond, McLaughlin, & Bernstein, 1985). Although peer coaching has gained greater attention in the last decade, this model of professional development is not yet used by many schools or teachers (Sparks & Loucks-Horsley, 1990).

Initiatives to promote and enhance school improvement have provided the impetus for professional development through a school development/ improvement process. In trying to address the various barriers to educational improvement, some states, districts, and schools have sought to effect whole-school change. As teachers become agents of change, participating in school improvement activities, curriculum and assessment development, and shared decision-making structures, they learn a great deal about curriculum and teaching issues, often more deeply than through other, more traditional staff development activities (Little, 1993). Thus, these approaches to school improvement prove to be strategies for professional development as well.

Recent reform efforts call for changes in teacher practice away from didactic, teacher-centered approaches to those that view the teacher as a guide or facilitator of students' active learning. In order for teachers to teach with their students' needs in mind, they have to inquire both into students' thinking and learning, and into the effects of their teaching. This view of teaching is most closely related to an inquiry model of staff development, in which teachers themselves formulate the questions about teaching and learning that can best facilitate the growth of their practice. The inquiry model of professional development may include such activities as teacher study groups, teacher research, or teacher collaboratives/networks. Some recent research suggests that this type of professional development is more meaningful for teachers and has greater impact on teaching practice (Little, 1993; Miller, Lord, & Dorney, 1994). Though these kinds of professional development opportunities are increasing, they are not the norm.

When professional development seeks merely to train teachers for compliance with state or district requirements, teacher reflection on concrete problems of practice and integration of knowledge and practice rarely occur. Developmental and inquiry models of professional development are beginning to create new kinds of opportunities that enable study, reflection, problem solving, and collegial learning.

Participation and Incentives

Teachers are most likely to participate in district-sponsored workshops during the school year (74 percent), followed by committees dealing with subjects other than curriculum (46 percent), curriculum committees (36 percent), professional growth activities sponsored by professional associations (35 percent), and workshops sponsored by the school system during the summer (24 percent). In 1991, half of all teachers reported earning some college credit in the previous three years. Younger teachers were more likely than their older counterparts to have participated in district-sponsored programs or to have earned college credit in the last three years (NEA, 1992).

Teacher participation in professional association-sponsored professional growth activities increased from 25 percent in 1971 to 35 percent in 1991. This increase may reflect the growth in membership in subject-matter or professional special-interest associations, from 38 percent in 1981 to 48 percent in 1991. Professional associations' increasing involvement in articulating subject curriculum and assessment standards in the last decade is perhaps another influence promoting greater teacher participation (Little, 1993).

Incentives to participate in professional development opportunities are usually salary-based. In addition to cost-of-living raises, teachers receive salary increases when they obtain a certain number of college/university or district in-service credits and as their years of experience in teaching rise. For example, a teacher with five years' experience and a bachelor's degree is placed on a specific salary-scale step. This teacher would move up steps on the salary scale by increasing his or her years of experience and by obtaining college/university or district in-service credits. Other professional development opportunities sometimes come under the auspices of the local union contract and sometimes are at the discretion of school or district administrators.

Funding for ongoing professional development is not substantial in most local school districts. Overall, U.S. school districts spend less than one half of 1 percent of their budgets on professional development for teachers as compared to 8–10 percent of expenditures allocated by businesses to employee training and education (Darling-Hammond, 1994a). In times of budget cuts, professional development is usually the first item eliminated.

Although professional development activities have traditionally been implemented from a district level, some recent decentralization of these activities, shifting their control to the school level, has occurred. Decentralization has sometimes, but not always, translated into greater teacher input in and engagement with professional development. Inadequate resources and insufficient technical assistance have hindered some school efforts (Miller, Lord, & Dorney, 1994, p. 126).

The configuration of professional development activities has direct implications for "the nature of staff development work, teachers' perspectives, and funding patterns" (Miller, Lord, & Dorney, 1994, p. 121). Recently, in recognition that school reform efforts require time for teacher learning, some states have begun to add days to the school year that are state-funded and reserved for the professional development of teachers. A few schools that are restructuring have also found ways to rearrange the normal school schedules, which typically allocate almost no time for joint planning or consultation, in ways that allow for greater teacher collaboration and professional learning.

POLICY ISSUES AND TRENDS

Current Policy Issues and Problems

In 1983, the National Commission on Excellence in Education issued a report called *A Nation at Risk*, which brought to the forefront issues and concerns regarding the nation's educational system. This report and a barrage of other reports that followed focused on perceptions of declining student achievement in an era requiring greater levels of educational success for all students. Educational reforms over the next several years were characterized by greater state control in determining educational processes and outcomes through mandates for higher educational standards.

In 1986, a "second wave" of educational reform followed, with reports from the National Governor's Association, the Education Commission of the States, the Carnegie Forum on Education and the Economy, the Holmes Group, and others. These reports affirmed the need to improve education by emphasizing the need to professionalize teaching (Darling-Hammond & Berry, 1988). Recruitment, preparation, licensure, and renewal of a competent teaching force are now widely recognized as among the central policy issues facing the United States in its educational reform efforts.

The emphasis on professionalism in teaching urged by these reports and sought in some emerging reforms of licensing, certification, and teacher education is one that follows the path of many other professions in the United States over the past 100 years, starting with medicine, and continuing through law, architecture, engineering, nursing, and many other occupations. Professions can be characterized by a specialized knowledge base, a commitment to client welfare, and the definition and transmission of professional standards (Darling-Hammond, 1990b). Occupations that have sought to become professions have increased their requirements for education, created standards of knowledge and ethical behavior that govern entry and practice, and created means for enforcing these standards.

By these tenets, teaching in the United States is only a quasi-profession. It is the only licensed occupation in the United States that still allows some individuals to enter the profession without preparation and without meeting common standards. In most states, standards (requirements for teacher education, licensing, and testing) are not developed or enforced by the profession. Except in the small number of states with professional standards boards for teaching, standards are set by legislatures, lay boards, and commercial testing companies. While professional teaching associations have worked to define a common knowledge base, state policies do not always ensure that all practicing teachers have mastered that knowledge base. The issues of how better to define, transmit, and enforce professional teaching standards are among those a variety of government and professional agencies are currently tackling.

Policy Initiatives

Various teaching associations are now making efforts to create structures that define professional membership by virtue of knowledge and competent practice, and more states are joining the handful that have delegated licensing decisions to professionally constituted standards boards. Organizations such as the National Science Teachers Association (NSTA) are creating their own standards for certifying members. The Holmes Group of education school deans is considering what knowledge constitutes a fully professional course of preparation and how that should be delivered. These efforts are buttressed by a recent major revision of the standards used by the National Council for Accreditation of Teacher Education for evaluating teacher preparation programs.

Private, nongovernment professional associations are currently quite active in influencing the development of teaching. Three key policy strategies are now underway toward professionalizing teaching: First, the National Board for Professional Teaching Standards was established in 1987 to create an assessment structure for advanced professional certification of highly accomplished teachers (NBPTS, 1991). By developing voluntary national certification standards, the NBPTS is defining what expert, experienced teachers need to know and be able to do. As districts and states begin to recognize certification as a meaningful indicator of expertise for salary and appointment purposes, as well as for designing evaluation programs, the standards are expected to have increasing practical effect and reach.

Second, model licensing standards and assessments for beginning teachers have been developed by a group of over 20 states belonging to the Interstate New Teachers Assessment and Support Consortium. The INTASC standards are derived from the National Board standards, which embody criteria for identifying excellent teaching as the basis for exploring what beginning teachers should be prepared to know and be able to do in order to develop over time into board-certifiable, highly accomplished teachers. More than a dozen states have already adapted or adopted these standards for their state licensure requirements, and many others are considering doing so.

Finally, the National Council for the Accreditation of Teacher Education has begun to reexamine its standards so that they are consistent with the INTASC and National Board standards. This means reevaluating the *content* of the standards to ensure that they represent a similar conception of teaching knowledge and skills and changing the *structure* of the standards from input-based regulations to outcome-based goals for the demonstrated abilities of candidates. Instead of just showing what courses and faculty they have, programs should also be able to demonstrate that their configuration of learning experiences addresses all of the standards and that they are carefully assessing candidates toward attainment of the standards.

INTASC and NBPTS standards create a continuum of expectations for the teaching profession, from preparation to advanced practice. In doing so, these standards clarify "the nature of teaching desired and define the effective teacher" (Wise & Darling-Hammond, 1987, p. 31). The push for coherent, performance-based assessment of teacher knowledge and skills present in all three of these initiatives is a trend that may ultimately enable states and professional organizations to develop and maintain a coherent accountability system for teachers—one that may eventually provide a common conception of teaching and a common set of standards for learning to teach that would permeate both teacher education programs and licensing requirements.

In addition to these efforts to articulate what teachers should know and be able to do, some states are seeking to connect their school restructuring efforts with initiatives to reform teacher education. These efforts are aimed at creating schools to meet an information- or knowledge-based society and economy. They seek to help students learn to frame problems; find, integrate, and synthesize information; create new solutions (problem solve); work and learn independently; and work cooperatively. In order for this to occur, teachers must be able to bring together all that they know about cognition, different approaches to learning, the structures of their content areas, and more authentic measures of achievement in a varied teaching repertoire (Darling-Hammond, Wise, & Klein, 1995). One example of a joint strategy for mutual restructuring of student learning and teacher learning is the advent of professional development schools as places that exemplify the goals of school restructuring and that provide learning opportunities for new and veteran teachers (Darling-Hammond, 1994a).

Thus far, most of the effort to improve the caliber of teaching and teacher education has taken place on the state level. However, there are a number of major federal initiatives emerging that support teaching and the professional development of teachers.

A new federal law, the Goals 2000: Educate America Act, establishes a framework for comprehensive education reform, by supporting states, communities, and schools in efforts to raise the expectations for all students based on the establishment of challenging academic standards. Title III of Goals 2000 authorizes a state grant program designed to support, accelerate, and sustain state and local improvement efforts aimed at helping all children reach challenging standards. The act requires that mandated state improvement plans reflect the input of classroom teachers in outlining strategies for improving teaching and learning and students' mastery of basic and advanced skills in academic subjects. State plans must also describe a process for familiarizing teachers with state content and performance standards and developing the capability of teachers to provide high-quality-instruction in the core areas. Local subgrants, awarded by states, might also support professional development efforts.

The recently enacted Improving America's Schools Act of 1994, the reauthorization of the Elementary and Secondary Education Act (ESEA), builds on Goals 2000 by providing nearly $11 billion to school districts and schools to improve teaching and learning, primarily for disadvantaged students. Among the key provisions of the new ESEA is the Eisenhower Professional Development program, which will support sustained, intensive, high-quality professional development tied to academic standards. The program, which requires school districts and schools to develop plans for improving teaching, recognizes the different needs of schools and provides teachers and principals with important roles in determining their training needs. Efforts supported under the Eisenhower program are intended to move away from short-term, one-time professional development activities and toward more sustained, long-term efforts that become integrated into the daily life of the school.

Other provisions in ESEA, among them activities supported under Title I (Helping Disadvantaged Children Meet High Standards) and Title VII (Bilingual Education, Language Enhancement, and Language Acquisition Programs) also authorize substantial resources for professional development.

Also, the U.S. Department of Education is working with other federal agencies to examine how to integrate services for students and their families and exploring the interprofessional development issues for educators and other human resource personnel. Such efforts will attempt to coordinate funds and the evaluation of various federal efforts in this area. Time will tell how these many and varied initiatives will unfold as the nation looks to schools for ever-more ambitious attainments, and to teachers for making them come to fruition.

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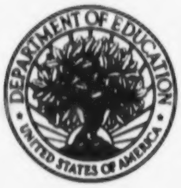

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